

**Records of
the Great East Japan Earthquake:
To Advance Forwards
After the Disaster**



~Pine tree of Iwaisaki changed to the shape of dragon by Big Tsunami~



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A Record of Precious Words To Guide Us Into the Future

Superintendent, Kesenuma City Board of Education **SHIRAHATA Katsumi**

March 11, 2011, was an unforgettable day for people in Japan.

The Tohoku Area Pacific Offshore Earthquake and Tsunami—said to be the worst since 869 A.D.—struck the Pacific Coastline of Eastern Japan. In Kesenuma, there was continuous violent shaking at a lower 6 level on the Japanese earthquake scale of seven. First, electricity was cut off, telephone lines were disconnected, and although mobile phones could be used initially with difficulty, all functions were finally discontinued. Of course, no one could watch television. The city was thus isolated from all outside information, with the exception of some disaster-response government wireless systems. In this situation, a tsunami that towered over 20 meters at its highest point crashed into the Kesenuma coast.

The tsunami caused enormous destruction, tearing away even the foundations of buildings in its path. Heavy oil flowing from oil tanks was ignited, and the entire bay became a sea of fire, which spread even as far as Oshima Island and Karakuwa Peninsula. Meanwhile, it was snowing. This disaster took the lives of more than 1,200 persons in Kesenuma City, and it destroyed around four-fifths of our businesses, with the loss of jobs for approximately five-sixth of our workers.

In this disaster, schools were faced with the task of protecting the lives of preschoolers, school students, school employees, and the numerous local citizens who rely on schools—all in a situation where information was unobtainable through ordinary channels. The infrastructure of electricity, communications, and roads was destroyed. Roads were impassable, filled with debris. Motor vehicles and railway track had been swept away. Unable to travel, local people were also confronted with an inability to obtain a supply of goods and necessities. Many schools had no emergency supplies, or at the most, very little.

Although it often took time to perform required engagements under these very serious difficulties, schools were certainly not unprepared to respond to the tsunami. In fact, Kesenuma City had a full-fledged Disaster Prevention and Mitigation Manual, and most schools had been performing disaster-prevention and response education. The Kesenuma City tsunami-response system was also in full place, centered under the Disaster Management Department at City Hall. The city had also established an independent Tsunami Observation System. Further, under the guidance and advice of Tohoku University, there were full linkages in place between local communities and schools. Kesenuma City was thus seen as a leading city in terms of tsunami disaster preparation, and, in fact, visitors from many countries had come to observe our city. The city had published and distributed to each school the “2007 Kesenuma Local Area Disaster Prevention and Response Plan.” Yet the city’s Disaster Management Department was not satisfied at just that, and in July 2010 it created the “Kesenuma Evacuation Sites and Management Manual,” with the concept that city schools would serve as “hub” sites in the case of an emergency. Nevertheless, it is true that the reality proved to be different from what had been prepared for, and from the time of the disaster until now, so many unexpected things have happened, as well as things we never even conceived of prior to the event.

It is therefore essential that we know many key points, including how each school principal ascertains the extent of the damage, under what conditions decisions were made, and what kind of instructions and orders were issued, and so on. Such knowledge will be indispensable in helping schools to prepare for any future disaster emergencies, including a tsunami. This will also be essential in discussions among local areas, cities, public institutions, non-profit organizations (NPOs), volunteers, etc., as to how they can support schools during a disaster.

It is therefore important that the straight feelings of school principals be recorded. At the same time, we believe that this publication will serve as a unique and priceless artifact in future considerations about crisis management at schools in an emergency, and in disaster-prevention education.

Since March 11, 2011, we have enjoyed the physical and mental support of the Miyagi University of Education. And certainly it was none other than the great sustaining power of the Miyagi University of Education that enabled us to be the first city within the disaster region to open all of its schools, and to provide rich classes and a variety of training activities, as well as to publish this booklet. We thank the University here with all of our hearts.

We also express our admiration for each school principal, who all in this time of great disaster have continuously encouraged our educational employees, and have worked to protect the children and local areas. At the same time, we hereby state our deep gratitude to all of those who have supported us with your thoughts and acts from each local region, from throughout Japan, and from around the world.

Prefatory Messages

On the Publication of “Records of the Great East Japan Earthquake: To Advance Forward After the Disaster”

Director, Support Center for Revival in Education

Liaison Director

Miyagi University of Education

ABE Yoshikichi

The Great East Japan Earthquake this time caused enormous damages at school sites. According to the Miyagi Prefecture Board of Education, as of October 12, 2011, of 759 of total of 882 schools, school buildings and other facilities at 50 elementary and junior high schools are unusable for the time being. Kesennuma City was one of the hardest hit of all regions; yet when the earthquake occurred, teachers and staff worked diligently to protect the lives of their students, and schools and local communities have worked with all their might for the revival of education. The present document, subtitled “To Advance Forward After the Disaster,” is a monument to the efforts and struggles that each school has taken over the previous year toward revival, under the leadership of school principals.

Cooperation between the Kesennuma City Board of Education and Miyagi University of Education now marks a decade, with its start in May 2002 at Omoso Elementary School with research and projects in the field of international environmental education. In March 2005, a “Memorandum of Joint Cooperation” was exchanged between Miyagi University of Education and Kesennuma City Board of Education. Then, in April 2008, the Kesennuma City and Miyagi University of Education Cooperation Center was established.

Thus, even before the current disaster, Miyagi University of Education was cooperating with Kesennuma City in disaster prevention and response education. Also, in the post-disaster revival process, as the hub university for training teachers in the disaster area, we are engaged in support work for the revival of education; just some of our projects include sending volunteer students to Kesennuma City schools and other sites, and holding joint seminars/

The Support Center for Revival in Education was established at Miyagi University of Education on June 28, 2011. The purposes of this Center are to, while considering the contents of revival policies of local authorities and concerned organizations, clarify the priorities of individual engagements, engage in the mental health care of students and children from middle- and long-term perspectives, secure and improve academic capabilities, and provide support to existing schoolteachers and staff, all towards the revival of education. As for Kesennuma City, it will establish a hub for the Support Center for Revival in Education, and plans to be deeply involved in the middle- and long-term support of education revival.

Within the present report, pearls of wisdom can be found in many places, regarding such things as what kind of actions school workers should take in a disaster, and how to protect the safety of children. In earthquakes anticipated into the future along Japan’s eastern coast—whether in the Tokai (East Sea), the Tonankai (the Southeast Sea), or the Nankai (the South Sea), or wherever one may hit—, it is thought that the present booklet can play an important role in protecting the safety of children and students in an earthquake and tsunami.

I personally have very deep and fond sentiments for Kesennuma City, as it was the first place I served as a teacher after my graduation from university. The time is ripe for these Records of this disaster to be submitted to the world, from Kesennuma, the city that suffered the most terrible damage in Japan this time. It is hoped that this booklet will be actively utilized at education sites nationwide, and everywhere.

On the Publication of “Records of the Great East Japan Earthquake: To Advance Forward After the Disaster”

Chair, Association of Principals of Kesenuma Municipal Schools

ONODERA Takashige

“Even in the midst of adversity, let us not reproach heaven; rather, let us endure our fate, and live while helping each other. That is our mission into the future.” These words were spoken by a student representative of school graduates at a graduation ceremony, held 10 days after the earthquake at a day-care center serving as an evacuation site. Even now when nearly a year has passed since the Great East Japan Earthquake, I still feel that this statement serves as our guiding principal.

Still now we cannot forget our feelings of helplessness in the disaster: the fears of our schools collapsing in the violent shaking when we could not even stand up, and watching while completely stunned the cars and debris flowing before our eyes in the midst of bitter cold. However, thanks to the warm support and cooperation of so many of you from around the world, stability has, to a great degree, returned to the schools of Kesenuma City.

We who have suffered in this unprecedented disaster have lost much. Yet we have also become aware of many things, and have learned considerably. Our deliberations about what has to be done now have led to the conclusion that, to continue moving forward even in a trying situation, we must observe clearly and without flinching the actual situation, and calmly analyze the issues we face. We have left a record of these facts in this document, to communicate to the generations to come. This publication also records the decisions made at the 34 Kesenuma municipal elementary and junior schools in the period of isolation after the disaster, and the struggles each school made to cope with the confusion. It is a record from various viewpoints of the engagements undertaken hitherto, and of related issues and problems.

Now, when most of the debris has been cleared away, the artifacts of our memories have vanished, and we are left with inexpressible feelings of loneliness and loss. Today, our children and all of our local area continue to suffer, often without the ability to see beyond today into the future.

Japan is an earthquake-prone nation, and more major earthquakes are expected. Yet we hope that no one has to ever repeat our experiences. Not just for an earthquake or a tsunami, but for any disaster preparedness and mitigation, words alone are not enough to realize concrete responses. This was proven in this disaster. I believe that we must not be overconfident of the abilities of human power alone, that we must instead humble ourselves and think about what is of real importance.

We do not know how many years it will still take before Kesenuma City is fully recovered. But we are determined to ensure safe and stable school lives for our children into the future, with our school principals working together as one unit, sharing in detail all pertinent information. As an expression of our gratitude to all for your support and assistance, and as our pledge that we will move forward, we submit these Records. If they can help to serve as guidelines in disaster prevention education for major earthquakes, in areas throughout Japan where such earthquakes are feared, then we shall be truly glad.

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Status of Damage within Kesennuma City, and Steps towards Educational Revival

Map of Submerged Area



Status of Damage within Kesennuma City



Tsunami Prevention-and-Mitigation Education in Kesennuma City: Past, Present, and Future

Process of Disaster Prevention Education under the collaboration with City Board of Education, Schools and the City Disaster Management Department

Superintendent, Kesennuma City Board of Education SHIRAHATA Katsumi

Already a year has passed since our earthquake experience. Currently, investigations from various perspectives are underway, as well as verifications concerning our tsunami-related disaster responses. Also of extreme importance is a renewed look at the efforts Kesennuma schools have made in tsunami disaster prevention/mitigation-related education.

1 Tsunami experiences in the Sanriku District, and their deterioration in memory

People in the Sanriku District, which includes Kesennuma City, have always tried to live as close as possible to the sea, to enjoy its benefits—even while holding a fear of the ocean. This means that there is a high possibility that the District may be hit by tsunami. And, in fact, tsunami have been the cause of major disasters in the Sanriku District and Kesennuma.

History has recorded many major tsunami, in the years 869, 1611, and 1896, as well now as the 2011 tsunami. In Japan's modern period—since the Meiji Era (1869-1912)—a notable tsunami occurred in Showa Year 8 (1933), where the waves reached seven (7) meters in the Osawa District, located along the coast north of Kesennuma.

In the tsunami of 1933, 81 persons died in Kesennuma City, far less than the 1,906 persons who died in the great tsunami of 1896. It was thus thought the city's efforts regarding tsunami response had achieved some success.

In Miyagi Prefecture, there have been 33 museums related to tsunami, (formerly called “tidal wave” museums), with nine (9) such museums having been constructed in Kesennuma City. Photo 1 shows the Tidal Wave Museum in the Karakuwa district of the City; this was built after the 1933 tsunami, and is the only such museum still existing. These are evidence of the enormous efforts that Miyagi Prefecture has made to prepare people to respond to the tsunami that have struck the area repeatedly.

Still, it must be recognized that our people had lost the sense of urgency about tsunami, and the memories thereof had faded. As the famous folklorist, Kunio Yanagida, lamented in his essay, “Twenty-Five Years Later,” only stories of popular interest can remain viable—all else is forgotten. (The essay is found in his book, “Spring in the Snow Country” (“Yukiguni no Haru”), published by Sogensha in March 1940.) This is true for the period that followed the 1933 tsunami. Certainly only a very few of Kesennuma City residents know that such a museum had been constructed in their area after the 1933 tsunami.

2 Developments in tsunami preparedness education

Even though our memories of the past had dimmed, below are described three events that have assisted our region in retaining a strong awareness of disaster prevention, and that have helped us stay knowledgeable about information from other nations and other regions—all of which are linked to our current engagements.

First, there was the Miyazaki Prefecture Offshore Earthquake of 1978. In Miyazaki Prefecture, 27 died and 10,962 were injured. The Prefecture declared June 12 “Miyazaki Prefectural Citizens Disaster Prevention Day,” with related activities.

At schools, engagements in disaster prevention and mitigation training that had been performed in the Spring and Fall were given new emphasis, and this training served as the main disaster-related education. However, the focus was less on tsunami, and more on earthquakes and fires, and these were mainly aimed at crisis management at schools.

The second even that was linked to current disaster-related education within Kesennuma City was the full-fledged launching in 2002 of ESD (education for sustainable development). In that year, Omose Elementary School started its international collaborative education program, which proved to be the origin of City ESD.

ESD has been defined as educational practice for “the cultivation of the will to foster sustainable development

within local areas, prefectures, Japan, and the world, and of the specific resources and capabilities that will enable the realization of such development.” With that in mind, Kesennuma City started a tie-up with the Miyagi University of Education. There then emerged city schools that used ESD as a means for disaster-related education regarding tsunami.

There are many ESD-like aspects in disaster-related education, and a full discussion of these can be found in Section 3 below.

The third event tied to current disaster-related education in Kesennuma occurred in 2003, the year following the introduction of ESD. In May, a level 5 (Japan scale) earthquake occurred with its epicenter 16 kilometers offshore Kesennuma. This was the first such violent shaking that many had experienced in their lives, and a tsunami might have easily occurred. Yet in a post-quake survey conducted by City Hall of 22,000 households, only a very few, 1.5 percent, evacuated their homes, aware of a possible tsunami.

With a due sense of the extent of a possible crisis, the City’s Disaster Management Department held seminars and local meetings within 131 of the city’s 171 designated autonomous districts. Most of the people who attended, however, were senior citizens. With the aim of educating younger parents and their children and school students, and from these to older persons, tie-ups were made with local schools to perform disaster prevention-and-mitigation education. The schools responded positively, and they in turn sought outside assistance for this education. Hashikami Junior High School and many other schools performed systematic and planned disaster-related education.



Photo 1 ESD (Tsunami Preparedness Education)

3 Disaster preparedness education regarding tsunami

The result was the focus on the following three points regarding tsunami-related education within and outside of schools.

- 1) Spring and fall disaster-response drills.
- 2) Disaster education unique to school’s own characteristics.
- 3) Disaster education of school-age children in collaboration with local communities, with the aim of lifelong education.

As for 3), this can be subdivided into three aspects:

- (1) Learning at public facilities.
- (2) Learning within local communities.
- (3) Learning in even broader regional areas.

As for contents, these include the following:

- a. Learning and understanding factual knowledge concerning earthquakes and tsunami.
- b. Prediction of, and preparation for, disasters.
- c. Emergency actions (evacuation, rescue, and support).
- d. Collection and distribution of earthquake/tsunami-related information.

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Figure 1 Image Diagram of Disaster Education

Items (1)-(3) above employ the concepts of “self-help,” “mutual assistance,” and “public support” as common approaches to achieving these goals, in collaboration with local communities, etc.

A further aim is to share common ground in regards to disaster education, specifically concerning what kinds of disasters are being considered in the this learning’s contents and approaches.

Items a’ -d’ below can be expected to help to reinforce the education contents listed in a.-d. above.

a’. Knowledge-learning, understanding, and active-use abilities.

- b'. Abilities for foreseeing the future, making proposals, thinking, and preparing.
- c'. The ability to decide and act by oneself, as well as to move forward with others towards a better direction.
- d'. The ability to appropriately judge information, as well as to express and communicate.

It is hoped that education for sustained development will be a major impetus in cultivating these abilities. One could even claim that tsunami-preparedness education is ESD.

Engagements at Hashikami Junior High School are the most well-known among tsunami-related preparedness education at Kesennuma schools. First to third year students there (7th to 9th graders) are involved as a whole school, this year in “self-help,” next year in “mutual assistance,” and the year thereafter in “public support.” Also involved are the Hashikami Elementary School, parents and other local citizens, public institutions, and so on. Efforts are constantly made to ensure that the activities do not become mere formalities.

Below are introduced less well-known examples from items (1), (2), and (3) under item 3) above, Disaster education of school-age children in collaboration with local communities, with the aim of lifelong education.

It bears repeating that Kesennuma City is performing its disaster-related education in collaboration with the Board of Education, schools, local areas, the City’s Disaster Management Department, even universities, etc. Thus, disaster education within our schools is further extended by learning outside of the schools.

An Example of 3.1 (Learning at public facilities)

Photo 3 shows students learning at the Tsunami Museum (known formally as the Tsunami Experience Museum and Visitors Center). Here, students are presented with easy-to-understand explanations: they can also virtually experience a tsunami with video, plus a simulation of a tsunami occurring.

An Example of 3.2 (Learning within local communities)

We believe that it is important to hold training in common with local adults, and we create opportunities for children to participate. This was especially true when we became a model project under the Japan Ministry of Land, Infrastructure, Transport and Tourism (MLIT) 2009-2009 program, “A New Public,” with the Risk Management Department headed by Kenichi Sato and the Board of Education playing a leading role in this Kesennuma City project.

The purposes of this project were:

- (1) To foster residents’ pride in the community;
- (2) To raise awareness regarding disaster management;
- (3) To revitalize the community via exchanges with foreign visitors.

A special characteristic of this program was its basis on the awareness that natural disasters can also themselves serve as regional resources. Namely,

- (1) These provide learning sites for students outside of their schools;
- (2) Tsunami-related events and exhibitions are held;
- (3) Symposiums raise awareness regarding disaster preparedness.

An Example of 3.3 (Learning in even broader regional areas)

The next example is the Kesennuma Tsunami Field Museum, a project undertaken in the 2009-2010 school year. We received support as a Ministry of Education (MEXT) project, as well as guidance from various university-related individuals, especially Professor Emeritus Nobuo Shuto from Tohoku University. From the Kesennuma City side, the key participant was Chief Hidemitsu Suzuki of the Risk Management Department.

In the project, cell phones could be used to access the Field Museum website and its tsunami data bank. From the field, the cell phone acquired location information via GPS, and a photo taken at the site plus a short memo were sent by email to the server. The result could then be accessed from a personal computer, for viewing and/or editing. In this way, field data could be easily accumulated and shared in common.

Ms. Rie Oikawa, a teacher at Kesennuma Elementary School, used this system in here classes, thereby demonstrating that this could be used at schools as well. This system could also be utilized in broader areas, such as



Photo 2 Hashikami Junior High School, Disaster Drill



Photo 3 The Tsunami Museum

for a variety of research activities and to support tourism. Thus, Kesennuma has designated as priority objectives in its Disaster Recovery Plan the enhancement of system functions and the accumulation of additional related usage. The Ministry of Education also plans to further promote this project within its Support Program for Disaster Recovery-related Education.



Photo 4 The Field Museum

4 The giant tsunami that actually struck

Despite all of these engagements, the scale of the giant tsunami of March 11, 2011, was far beyond anyone's anticipations. The tsunami reached a maximum height of 23 meters in Kesennuma City. And in the falling snow, all of Kesennuma Bay was on fire.

In this disaster, 1,030 people lost their lives in Kesennuma City. As of January 10, 2012, the number of missing was 340 persons. As for local business, 3,314 of 4,102 workplaces were damaged, while 25,236 persons among 30,232 workers became disaster victims. Around 3,000 of 3,566 fishing vessels were damaged, a large number. In fact, all three of these statistics reached the staggering rate of over 80% related damage/destruction. The survival rate of preschool and school children in Kesennuma City was 99.8%. It was tragic that we lost 12 of these youngsters, including the missing. As for our institutions, four schools had major destruction, and not one school remained without some damage due to the earthquake and/or the tsunami.

Nevertheless, our schools served as evacuation shelters, or as storage facilities for support materials, or resting places for the dead. All schools were front-line facilities in the disaster response, and students and teachers alike worked vigorously in rescue and recovery efforts.

Then, on April 21, 2011, all schools were successfully reopened—despite the fact that not a few schools still lacked electricity, water, and telephone services. Since the disaster, with the material and mental support and assistance from throughout Japan and around the world, as well as the hard work of numerous volunteers, the efforts of citizens and residents have been reflected in the success of schools. All hearts were filled with gratitude for the warmth and kindness of so many, many people. As daily life at schools calmed down somewhat towards normal, emergency temporary shelters were constructed on the grounds of 17 schools, and these have been continuously in use until the time of this writing.

5 Future tasks in tsunami-related disaster education

Verification has yet to be made of the extent of the results of tsunami-related disaster education undertaken thus far by Kesennuma City and the Kesennuma Board of Education. In terms of protecting lives, however, it is clear that actions taken at the time, including school evacuations, etc., were largely successful: the survival rate of preschool children and students was 99.8%, and at sites under the direct management of schools, there were 0% deaths. Still, it is nearly impossible to fully gauge the extent of education results, given that the tsunami was at such an unexpected huge scale, and all of the necessary and contingent ramifications of such an enormous disaster. However, we have received reports highly praising the lifestyles of students, especially junior high school students, at evacuation sites, as well as regarding their assistance-related activities. We consider such direct evidence of the fruits of our disaster education.

After this major disaster, what parents and local communities desire most now from schools is community-creation where there will be zero deaths as the result of a tsunami. This is stated as a concrete goal in the "Kesennuma City Disaster Recovery Plan." Essential is education that ensures that no lives will be lost in the case of any kind of tsunami.

Even as we tried to reassure each other that all would be well, we suffered crushing destruction under the giant tsunami. We now need to renew our efforts to rise as a community to tackle tsunami head on. We must also be aware that even after a tsunami has hit, another one may follow some time thereafter. We need to prepare educational materials and programs that spell out exactly what people must do in a tsunami. We can thus be even better prepared to face a tsunami, and we must ensure that our preparations will be able to function anywhere, under any conditions.

In our seemingly safe and secure daily lives, we must always consider the possibility of an earthquake, and prepare accordingly. It is also necessary to create documents, etc., including a crisis management manual, and to foster firm ties with caregivers (parents, etc.) and local citizens. Hitherto, we have considered disaster-response training and

drilling as one part of our disaster-related education. Yet, although there are many places where “disaster drilling” and “disaster education” overlap, we must consider these two as being separate, distinct items, and engage in each accordingly.

As described in Section 3 above, the contents of tsunami disaster prevention-and-mitigation education are fourfold:

- Learning and understanding factual knowledge concerning earthquakes and tsunami.
- Prediction of, and preparation for, disasters.
- Emergency actions (evacuation, rescue, and support),
- Collection and distribution of earthquake/tsunami-related information.

To perform all of the above, we need to take the following items into consideration.

(1) Tsunami disaster-preparedness education with greater consideration of children, individual students, and local residents, with the goal of zero tsunami-related deaths.

On February 6, 2012, a meeting for friendly discussions was held between the Miyagi Prefecture Board of Education and municipal boards of education. There, a speech was presented by Mr. Hiroki Sato, Section Chief within the School Health Education Division, Sports and Youth Bureau, of the Japan Ministry of Education, Culture, Sports, Science and Technology (MEXT). He said that schools are opened only 25% the time of a student’s life, and that a student spends even less time at school, only 15% of a 24-hour day. The question is, then, how a student will respond to a disaster that occurs during the other 85% of the day. It is thus necessary to go beyond the domain of crisis management at school, to a full-scale disaster prevention-and-response education.

(2) Tsunami disaster preparedness education based on disaster psychology

The song (and idea in) “Tsunami Tendenko” (“Tsunami Scatter”) has become famous due to this disaster (note: the song advises children to escape from a tsunami as quickly as possible, without consideration for their family members, to stay alive). This, however, should serve as a warning about a dangerous type of “majority synching bias.” Education that teaches the kind of thinking that a person can easily fall into during a disaster, and ways to handle such thinking, is also needed. Further issues include mental-health care, etc., from the time a disaster occurs.

(3) Tsunami-related education that builds for the future

In disaster-related education that involves tie-ups with the local community, there must be mutual activities among students, children, and local residents, as well as training regarding such things as preparing for a tsunami, escaping from a tsunami, and regarding communications and obtaining information, etc. To ensure even more reliable evacuation, etc., there must also be a sharing of knowledge as well as study and investigations. Such disaster education would not only increase the safety and related knowledge of participants; in a situation where students and children have a tendency to have weak bonds with the community, it would serve to strengthen those bonds, as well as give these persons a secure sense of presence in their community. And the community will itself gain renewed energy, new ideas, and a sense of freshness, thereby naturally increasing the sustainability of community ties. As stated in Section 3 above (“Disaster response-and-mitigation education regarding tsunami”), tsunami education is indeed ESD (education for sustainable development).

We want to ensure that our tsunami-related education considers as of even greater importance the themes of Kesennuma City, namely, greater emphasis on the future, on cooperative tie-ups, and on local communities. To do so, it is very important that we forge closer ties with parents and guardians, local communities, domestic and foreign groups and NPOs, governments, and so on.

(4) Tsunami education that keeps the memory of the tsunami experience from fading

As for deterioration of the disaster experience, this can be divided into two parts: a loss of knowledge, and a weakening of the sense of the direct reality of the disaster.

The progress in the collection of large amounts of media, and the saving of electronic data, mean that to a great extent, the loss of knowledge about the tsunami experience can be avoided. Deterioration of the sense of direct reality, however, is a persistent issue that cannot be escaped. It is essential that, as time moves on, there is preservation of fieldwork that supports the sense of reality, as well as of ruin artifacts. We want to incorporate such items in our education, for the coming eras as well.

(5) Disaster education as international disaster education

This relates to (4) just above. Looking back at the period prior to this disaster, it seemed that we had a greater sense of the reality of the major disasters that had happened in recent times and in other places, that those that had occurred in the past in our own area. One shocking example was the earthquake and tsunami that occurred off the coast of Sumatra in 2004. There was something very moving about the images of the tsunami, carrying debris, coming into Banda Aceh. The fact that disasters in other countries, closer to our time, had a greater impact on us than disasters that had happened in the old days in our own region, showed us how maintaining overseas and domestic exchanges could possibly serve to help avert the deterioration of a sense of direct reality.

In the presentation meeting of the Kesennuma City Board of Education on February 10, 2012, Mr. Muzailin Affan

of Syiah Kuala University, Indonesia, spoke on the theme, “Tsunami education based on learning from the lessons of the Great Tsunami in Indonesia.” It is hoped that we will see more of these types of engagements into the future, to broaden them so as to be even more effective.

(6) Disaster education as training for crisis managers

Miyagi Prefecture has decided to place a person in charge of disaster prevention at each school, and to assign chief disaster-prevention teachers for each municipality. With the school principal and the chief disaster prevention manager working as leaders, if we can work as an entire school to determine speedy and appropriate plans and policies when a disaster occurs, there will be a dramatic increase in school safety at such a time. However, as crisis managers and school leaders cannot always be present at the school, it is necessary that all teachers be trained so that they may acquire the credentials to serve as managing persons in a crisis. Tsunami preparedness education must serve as a good opportunity for performing such training. Such qualifications must also be broadened so that children and students, too, can acquire them to serve as crisis managers. At the very least, when they find themselves alone, even a first-grader must be able to make decisions for himself/herself to avoid danger.



Photo 5 Lecture by Mr. Muzailin Affan, February 12, 2012 (Courtesy of the Sanriku Shimpo Co.)

6 In lieu of a summary conclusion

Whatever one may think, it is true that Japan, and especially our region, has repeatedly suffered disasters, and we must learn to face that fact. From the past until the present day, nothing has changed in those terms.

The question then is, what kind of education do we need in this situation? The tsunami-preparedness education and environmental education that all schools are involved in within Kesennuma City will contribute to disaster preparedness. It will do even more, however—it will also consider as important the thoughts of each individual student, in their desires for making a happier region, a brighter Japan, and a better world. Our education is designed to continuously train students to have the qualifications and capability to accomplish these goals.



Photo 6 Karakuwa Elementary School learning activity in Moune

Note: This text includes additions and modifications to a speech given on February 14, 2012, at the CRICED-SEANEO International Symposium held at the Tsukuba (University) International Meeting Site, and to a lecture presented to the Education Group of the Japan-East Asia Future Leadership Program of the JENESYS 21st Century Japan-East Asia Network of Exchange for Students and Youth.



The Road to Educational Recovery in Kesennuma City After the Great East Japan Earthquake and Tsunami

Deputy Director and Supervisor School Education Division, Kesennuma City Board of Education
OIKAWA Yukihiro

1 Education in Kesennuma before the Great East Japan Earthquake and Tsunami



Kesennuma is located in the northeast part of Miyagi prefecture and is a town of fishery and tourism with a beautiful ria coastline. We have been expanding the activities aiming for “building a sustainable society,” making the most of our rich natural environment of forests, rivers and sea.

In school education, we have also expanded education called “Education for Sustainable Development,” (ESD) which has both local and global points of view, cooperating with regions, professional organizations, other countries and international institutions to raise children to carry on a sustainable society.

Kesennuma was designated as a model of RCE in Sendai region by United Nations University in 2005, for its educational activities were highly evaluated. In addition, it became a promotion area of ESD since totally 35 schools of kindergarten, elementary, junior and high schools were approved as UNESCO schools.

In this way, Kesennuma has been striving to develop affection for the region and an affluent international sensibility through reviewing the good points and problems of our region with a global point of view at the basis of bonds of the region.

2 School Correspondence just after the Great East Japan Earthquake and Tsunami

However, the tragedy came all of a sudden. A massive 9.0 magnitude earthquake whose hypocenter was off the coast of Miyagi prefecture attacked east Japan at 2:46 P.M. on Friday March 11, a day before the graduation of junior high schools. The severe shaking on which we could not keep standing continued for 5 minutes, and then about 30 minutes later, the giant tsunami beyond our imagination, that is said to occur once in 1000 years, hit the coast of eastern Japan.



The massive earthquake and tsunami cut the lifelines, the communication networks, and all the means of transportation all at once. Then almost all the schools in Kesennuma were isolated. There were many schools which became an isolate spot on land cut off information, transportation and supplies.

Under these circumstances, each school was obliged to solve the urgent and important assignment of “how to protect the lives of children.”

In Kesennuma City, these things have been done:



- Preparations for earthquake/tsunami predicted to come soon
- Disaster-response manuals created at each school
- Evacuation drills for a variety of hypothetical cases have been performed

However, this disaster was unprecedented, at a scale far beyond that anticipated in the manuals and drilling.

The extent of disaster-related damage differed much at each school due to geographical and other circumstances. This made disaster-response efforts even more difficult and complicated. Kesennuma had been preparing for an earthquake/tsunami, anticipated to occur in the near future. Disaster-

response manuals had been created at each school, and evacuation drills for differing scenarios had been performed. The March 2011 disaster, however, was unprecedented, at a scale far beyond anything imagined in the manuals. Moreover, coordinated responses were difficult, given each school's unique geographical and other circumstances. Furthermore, because of disruption of communication networks, instructions from the school boards and contact with other schools were hopeless. Each school had to judge or select alone without any information.

The teachers' wisdom and bravery saved lives of children at each school.

As a result, no children that were at schools died in Kesennuma. However, it is regrettable, the precious lives of 10 children, who were absent from school, or went home earlier and left school before the arrival of the tsunami, were lost. We have to learn from this painful and sad experience and it is our responsibility to improve and draw up disaster prevention education or evacuation manual for protecting even such children at all costs.



3 A way to restart the schools



Many refugees crowded into almost all the schools soon after the earthquake, and the school staff had to work for the management of the school cooperating with the local residents since the school became a shelter. At the same time, the teachers, who were also suffering from the earthquake, made every effort patrolling the shelters and the school districts without means of communication and transportation, to gather and deliver information such as confirmation of safety of the children, understanding the extent of the damage and the notices regarding temporary postponement of events such as graduation ceremony.

Some of the schools provided not only the gymnasium but also the classrooms as a shelter. Moreover, some of them became a camp for the Self-Defense Forces, a fire station and even a morgue. Therefore, lots of problems arose.

However, the municipal board of education and each school tried to solve the problem one by one holding up the slogan "reopening the schools in the disaster," since they believed that "rebirth of education accelerates restoration of the area," though infrastructure was insufficient and there were many restrictions, too.

They discussed reopening the schools with refugees and gaining classrooms enough to start. In addition, they operated school buses for the children who had evacuated beyond their school district and resumed school lunch system.

Finally, on Thursday April 21, 2011, all the elementary and junior high schools in Kesennuma could start a new school term all together, which was the earliest reopening among the disaster areas.

Thus, the staff of Kesennuma Board of Education made a great effort under this unprecedented circumstance to save lives of children, to evacuate local people, and to reopen schools for education.

On the other hand, the students also did everything all they could such as taking care of the elderly, helping preparation for meals, putting away debris, cleaning the toilets and holding a concert for refugees making the most of what they learned during the disaster prevention drills and ESD.



4 Recovery from the disaster and abilities fostered by education in Kesennuma

Now, it's been over one year. We consider what power made children and teachers overcome this disaster and what kind of qualities and abilities should be nurtured for reconstruction of schools and regions.

As mentioned at the beginning, we aimed for cultivating abilities and attitude of the children, who would shoulder the sustainable future, through empirical and inquiring study approach and process based on local areas.

As the National Basic Educational Promotion Plan describes, ESD, which Kesennuma promotes, is based on the same philosophy of the Fundamental Law of Education. It is an important educational philosophy to cultivate "children's power to live" and to nurture children who will shoulder the future.

And, it could be said that it certainly worked on the occasion of crisis management and evacuation measures performed soon after the earthquake.

Moreover, we are convinced that it will become an important philosophy in process of restoration and reconstruction in the future.

In concrete examples,

1. disaster prevention education to cultivate power of self-help and cooperation
2. life in symbiosis with nature
3. to create towns making use of rich resources of the area
4. to restore the local tradition and culture
5. communication ability to connect with the world
6. skill to draw our future
7. bonds with community and construction of the global network

ESD will last as a key concept toward the reconstruction.



5 Epilogue, hope to the future

Kesennuma is now on track to the future pulling through the earthquake disaster. Although debris of the earthquake remains still now, we have been trying to inform our harsh experiences and long steps to overcome to the people all over Japan and the world.

For example, we held "the National Convention of Environmental Education Research in every elementary and junior high school" at Oya elementary and junior high school on November 25, 2011. In addition, we held a local meeting of the UNESCO school by the Ministry of Education, Culture, Sports, Science and Technology, inviting people who are engaged in UNESCO schools on January 18, 2012. Moreover, the workshop for the leaders of the next generation in Asia and Pan-Pacific countries sponsored by the Foreign Ministry was held on March 1, 2012.



In spite of those activities, it is still a long way to reconstruct devastated areas, including Kesennuma. It seems to be in a chaotic state even now and hard to find the right way to go. However, we received a lot of hearty support

and encouragement from all over Japan and the world. Especially, Meguro ward, in a friendship relation with Kesenuma, local governments in Hyogo prefecture, which experienced the Great Hanshin Earthquake, and people involved in ESD and UNESCO gave us generous support such as much stationeries, messages and donations. Children and teachers in each school were given such items by volunteers from Tohoku University, etc.

Although we are in the midst of unprecedented difficulties, we have been devoting ourselves to regeneration and reconstruction of education perceiving bonds of people. We would like to express our sincere thanks to all.

The address given in reply at the graduation ceremony of Hashikami junior high school, where students were amid evacuation, contains the following passage.



People were helpless in front of harsh forces of nature and it relentlessly deprived us of the precious things. It was too severe to say that it's a trial given by God. I feel hard and frustrated. However, it is our mission to endure our fate and to help each other without resenting God.

Each word contains the deepest thought of people in Kesenuma, who are looking to the present and the future. It is the highest effect of education in Kesenuma and hope for the future to have raised children who can speak such words.

(Note) This article is a speech made in OECD/Japan International Seminar at Academic Activities Center in Tokyo on June 28, 2011. It was partly added to and revised.

Perfecting Educational Activities that Deepen Local Ties and Relationships

SAITO Masuo, Principal

1 Pre-Disaster School Overview**1 Outline of our school district, and educational environment**

- ①. Our school district is in the center of the city, has many public facilities, for example, a city office, a citizen hall, and a fish market. The northern part of the school district is next to Shishiori Elementary School district, the southern part is next to Minami-Kesennuma Elementary School, the western part is next to Shinjo Elementary School. Business areas, fish processing areas, and residential areas are located mixed in our school district. These days, the number of students has decreased due to the decline of the city center in local importance and the low birthrate.
- ②. Our school is located on a hill at the center of the city, and neighbors the city library and Kesennuma Junior High School. The school building is a modern facility which was rebuilt in 1988 with open space added.
- ③. Our school has a large schoolyard and is surrounded by lush green woods, so we are proud of this wonderful educational environment.

2 Immediate Post-Disaster Situation**1 Damage of school district**

- ①. Fish markets, fish processing companies, fish wholesalers, banks, hospitals, hotels, and restaurants at the shore of Kesennuma-bay (this area is less than one meter above sea level) were severely damaged by the tsunami.
- ②. Even when debris was removed from roads, because of ground subsidence, cars could not go through at the time of spring tides.

2 Damage of the school building

- ①. Because our school building is located on high ground, there was no damage owing to the tsunami. Portions of the walls were cracked by the earthquake.

3 Detail of damage to students, their families, and school employees, including teachers

- ①. When the major earthquake happened, all students evacuated to the schoolyard at once, then, were moved to the gymnasium. After that, we moved them to inside the school building because of the cold weather. It was the next day, March 12, at 4 p.m. when all students could get back to their families. No student was killed or injured due to tsunami-damage.
- ②. Two mothers of students died in the tsunami.
- ③. Damage to students' houses (as of March 25, the number of students: 320)
 - 11 students' houses were partially destroyed or flooded above floor level.
 - 49 students' houses were completely destroyed or washed away.
- ④. Places where students evacuated (as of March 25, the number of students is 320)
 - Evacuation shelters: 23 students
 - Their relatives' houses, and so on: 55 students
 - Others: seven students
- ⑤. Changes (move-ins and move-outs) of numbers of students (from Earthquake to September 2011)
 - Move-outs: 28 students

(Details: other Kesenuma City schools: six students, Ichinoseki City schools (Iwate Prefecture): three students, Sendai City schools: two students, Tome City schools: one student, Minami-Sannriku Town schools: one student, other prefectures schools: 15 students)

- Move-ins: 31 students

(Details: other Kesenuma City schools; 18 students, Minami-Sannriku Town schools: two students, Ishinomaki City schools: one student, other prefectures schools: ten students)

- ⑥. Damage for school employees (the number of them: 25)
 - Three school employees' houses were completely destroyed.
 - Three school employees' houses were partially destroyed or flooded above floor level.
- ⑦. Places where employees who were disaster victims stayed (as of August 1, 2011)
 - Apartments in other prefecture (Ichinoseki City, Iwate Prefecture): 2 persons
 - Apartments in Kesenuma City: 1 persons
 - Temporary housing: 2 persons

3 Immediate Post-Disaster Responses, and the School's Role

1 Evacuees situations and our support activities

- ① The total number of evacuees staying at our school was about 340 (as of March 13).
(Detail:s general citizens, students, their parents, hospital patients, residents of nursing facilities, kindergarteners, evacuees from Ojima, etc.)
- ② Facilities which were opened up to the local community
 - As the head office of the evacuation shelter: the gymnasium (This was not used as an evacuation shelter until the school-reopening.)
 - As evacuees' space: classrooms on the first and second floor of the western school building, on the second floor of the center school building, a music room, and the Kanae Hall.
 - Prohibited entry areas: the eastern part of the teachers' room and the principal's office on the first floor, a science laboratory, a home economics education room, classrooms on the third floor of the center school building, and specific classrooms.
 - Communications to evacuees: the head office contacted the teachers office using an internal line, then school employees broadcasted that within the school.
- ③ Keeping facilities and teaching materials safe
 - We kept educational tools and students' works—they had been in classrooms opened for evacuees—in rooms which could be locked.
 - We kept staff computers and documents of students' learning assessment in the principal's office so that we could protect children's personal information.
 - School employees were divided into groups comprised of four or five persons (mixed men and women), and they operated on a school-stay rotation system. (Men stayed in the teachers' room, and women stayed in a meeting room.)
 - School employees who stayed at school had to work from 9 a.m.
 - had decided to hold meetings at 9 o'clock every morning so that we could exchange information and do a succession of operations.
 - At-school jobs included cleaning toilets, taking out the garbage, cleaning the entrance, coordination of contacts with the head office, and reception of visitors.
 - We promoted the introduction of a leader system—we selected evacuees' leaders for every room or group—to the head office. Thereafter, there was integrated management of facilities and evacuees.

2 Important roles of City Hall, the Self-Defense Forces (SDF), and the school

- ① We requested City Hall to set up contemporary toilets and supply gasoline for staff cars.
- ② Arrangements were made to accommodate Japan Self-Defense Forces (SDF), a temporary bath and management room were set up, as well as a heliport.
- ③ Management of our school yard as parking area for evacuees, disaster companies/plants, certain support

organizations, and so on.

- ④ Responses to support groups and the mass media.

4 Engagements Aimed at School Reopening

1 Evacuee move-outs and preparation of classrooms for educational activities

- ① Evacuees began moving out from inside the school to the gymnasium and so on.

One of the difficult assignments for reopening this school was that we had all evacuees who stayed inside the school move out from classrooms to the other spaces, including the gymnasium, outside of the school building. We had to ask them to do so because Minami-Kesennuma Elementary School—which had been damaged by the tsunami—was using the eastern part of our school.

We asked the Kesennuma City Board of Education to instruct evacuees in move-outs. The Board had promoted using our school as an evacuation shelter, so we thought it should be involved in the closing as well.

Staff of the Board of Education explained the importance of moving out to leaders of each evacuee group several times; then, we made sure of the dates of all evacuee move-outs from inside the school.

※ We think, to the same extent as that for the manual explaining evacuation sites, the manual for closing such sites should also be made known to local residents.

- ② Preparation of classrooms for educational activities

Because we wanted to reduce the burden of school employees, we asked parents and volunteers to clean ordinary classrooms/special classrooms (12 rooms) and toilets (6 places) which had been used by evacuees.

Yet we requested a cleaning company to perform the cleaning ordinary classrooms in the western school building and the flooring (carpets) of “Anba-Hall.”

Residents voluntarily began to clean spaces that they had used, since they realized the importance of move-outs to the gymnasium. They were cooperative in the school reopening.

2 Ensuring safety of streets for students

The second assignment for the school reopening was ensuring the safety of school routes for children.

- ①. Making maps of school routes

We, all school employees, did a field survey of the school zone, then, we recorded dangerous areas with earthquake/tsunami debris or destroyed houses. After that, we made maps of safe school routes that showed where children could go through.

Thereafter, we asked the Kesennuma City Board of Education to ensure the safety of these routes, based on this map.

- ②. Support and corporation by the Kesennuma Security Center

Thanks to clearing debris, we found some areas where children could go on common school routes, and also where they could not because of overhead flooding, even after debris had been cleared. We changed school routes in those areas while gaining parents understanding. Additionally, we could ensure children safety on children’s routes to and from school because we obtained the cooperation of the Kesennuma Security Center.



Field survey of school routes, we recording dangerous areas

3 All of us — students, parents, and school workers alike — must unite to perform educational activities which foster a sense of unity and camaraderie.

- ①. Healthcare of students’ minds and bodies

We began periodic health surveys to ascertain students’ health condition of minds and bodies.

- Schedule: Once a month in April, July, November, a total of three times.
- Method: Using questionnaires or interviews with parents whose children are early school years’ (1st-3rd grades) students
- Content: “A questionnaire regarding your your mind and body,” with a total of ten questions.

- Supervisors: school nurse, health director, and classroom teachers.

②. The whole school Anba-Mountain climbing

We thought that performing educational activities—ones which could foster a sense of unity and camaraderie among students, parents, and school employees—were the first step to relieve all of their unrest and insecure feelings caused by the earthquake/tsunami disaster.

Therefore, we renewed previous excursions where each grade used chartered buses, and focused our purpose on an inspection tour. Then, we implemented “Whole School Anba-Mountain Climbing” which would reduce parents’ economic burden.

We planned the event in which all pupils and school employees climbed Anba-Mountain—towering behind our school, related in the words of our school song, and having a bird’s-eye view of the disaster in Kesenuma-bay and coastal area—with only some *onigiri* (rice balls) and water.

Thanks to the cooperation of the Kesenuma City Board, we could plant a memorial tree that was a Japanese Judas tree, our school’s symbolic tree.

Also, we called for parent volunteers for securing students’ safety.

③. ANBA Festival: “RECOVERY SPECIAL”

We were forced to call off a school event this year, a recital of children’s learning that is held every Autumn. In short, we lost an opportunity for each grade student to show their learning to outside.

Then, we planned the “ANBA Festival”—which has been held mainly by members of the student union so far—in the middle of November when the gymnasium was going to be reopened, and redesigned it into the “Anba Festival: Recovery Special”, so as to include each grade students’ recitals, including dances, music ensembles, choruses, skits, and so on.

Members of the student union decided that the theme for the “ANBA Festival: Recovery Special” would be “Making flowers bloom with happiness and smiles.” In addition, thanks to parents’ backup, booths by the higher classes could be opened as usual.



At the whole school Anba-Mountain climbing, the principal made a speech at the top of the mountain

5 School and Local Community Cooperation

1 Lending parts of our school building for Minami-Kesenuma Elementary School

Minami-Kesenuma Elementary School building, the first and second floors, was damaged by the tsunami, so it was not able to reopen. We willingly consented to lend some parts of our school to them when the Kesenuma City Board of Education asked us to do.

- ①. Class rooms we lent: Generally, the eastern part of building. Also, teachers’ room appurtenances were set up by the Kesenuma City Board of Education.
- ②. Children’s entrance: An entrance at the eastern side of the building.
- ③. Employees’ parking area: The eastern side of the schoolyard, in front side of play equipment. Additionally, we used this area as a stopping place for cars picking up children to and from the school.
- ④. Adjustment of timetable (As a general rule, we adjusted their activities so as to be in synch with our school’s chime bells.)
- ⑤. Confirmation of rules on using our school building and play equipment.
- ⑥. Adjustment of school events and making an allotment sheet which describes which school would use which educational areas—the swimming pool, the gymnasium, the science laboratory, the home economics room, the music room, etc.—for each day.



Athletic meeting of two school
Tape cut by two principals

- ⑦. Each grade student performed exchange studies.

2 A sports day together with Minami-Kesennuma Elementary School

We think each child's smile is a ray of hope. We are sure it greatly encouraged parents who were making efforts for recovery and restoration that both schools' children made earnest and lively efforts together. Also, we hope that parents of both schools would unite and strengthen the relationship bonds of our local community.

- ①. Theme: "Kesennuma ES, Minami-Kesennuma ES, Strengthen Our Ties and Make Full Efforts"
- ②. Date; October 10, 2011 Health and Sports Day (national holiday; second Monday in October)
Site: The schoolyard of Kesennuma Elementary School
- ③. Play form: a competition held between contestants who are divided into two teams, red and white. (Red: Class 1 of both schools, White: Class 2 of both schools)
- ④. Procedures:
Both schools' head teachers made an implementation plan.
Explanatory meeting were held about pupils' performance with all employees of both schools attending.
Pupils practiced their performances with each grade or the whole school, and cheer-practice was held for both the red and white teams.
The PTA was asked to participate in and cooperate with this event.
The grounds for the event were set up by both schools' employees and PTA committees.

3 Status of using our schoolyard

At the time immediately after the earthquake/tsunami, the school yard was used mainly as Self-Defense Forces' camp, a heliport, and a parking area for evacuees. After Self-Defense Forces left, it was used when Kesennuma Elementary School, Minami-Kesennuma Elementary School, and Kesennuma Junior High School's students—who could not use their own grounds because temporary housing was built in their schoolyards—had physical education lessons. Also it was used as a place for Kesennuma Junior High School's club activities. In an emergency, it will be used as a municipal heliport.

6 Issues and Prospects

- ①. As we promote educational activities like those undertaken before the Earthquake, the parents' financial burdens grow. Before the earthquake/tsunami, we had taken various fees—teaching material fees, class costs, school student council fees, PTA members fees, school meal fees, class trip fees, school yearbook's costs, and so on—from parents though the amounts differed with each grade. After the disaster, thanks to reconsidering the contents of educational activities, relief donations and support by many people, we could try to reduce parents' economic burdens in 2011, but we cannot make a prediction of what costs and how much we will collect in the next year. We think it is important that economical assistance from public funds be used to support parents.
- ②. Children's mental health is seriously influenced by family members and their mutual relationships. Because of the destruction of their houses and unemployment by the disaster, children have come up against difficulties such that they cannot have hopes for their home lives in the future, and parents who should support children closely are mentally and physically insecure. Therefore, of course mental healthcare for children is truly necessary; at the same time, adults involved with children also require considerable psychological care, we believe.

Aiming at School Management that Overcomes the Disaster Experiences, and which Considers the Utmost Importance of Human Lives

NAKAI Mitsuo, Principa

1 Pre-Disaster School Overview

Minami Kesennuma primary school is located in the south of inner Kesennuma city. The Okawa river flows from northwest to southeast in our school area and forms the boundary between Kesennuma and Jonan junior high school area. Some children entered our school from other primary school areas because of the shift to a flexible school area.

In the mid-1950s, the Showa period, the fish market was moved, a trading port was constructed, and Okawa river was improved. The coast area of our school area has developed as a center of commerce and industry because of the putting in place the infrastructure.

The guardians (parents, etc.) expect much of our school, and they are always cooperative for all kinds of school events. To improve the effects of education, we have made strong cooperation with the guardians and have moved to improve education at homes and in the community.

As a characteristic education activity, we have put effort into environmental study centering on Okawa river for about 20 years. Especially, we have supported children's activity as an opportunity for reconsidering good points of the community through breeding and releasing salmon when salmon spawns. We joined as a UNESCO school two years ago, and have concentrated our effort on ESD education.

2 Immediate Post-Disaster Situation

When the earthquake measuring 9 on the Richter scale occurred at 2:46 p.m, I was seeing the guest teacher off at the entrance with the deputy head teacher. Though we could not move easily because of the long continuous shaking, I instructed the deputy head teacher to make an emergency announcement over the school PA system. However, just at the moment he was about to announce, the power supply was cut off. Then, I instructed teachers who were in the teacher's room to tell each classroom to evacuate all the children to the center of the school ground as soon as the shaking subsided.

We could evacuate from the third grade to the six grade children to the ground because their classes were six periods, but the other children had gone home because the class for them was finished at five periods. I watched over the situation of evacuating at the school ground. At the moment, no one was injured. The arrival of a tsunami was expected because the shaking was very violent, so I instructed each class teacher to bring back to the school those children who were still somewhere near the school. About 10 children already had been home with their family. Some children were told to go back the school by passing girl high school students, and they followed the advice. As a result, we could bring back 90 percent of the first and the second grade children to the school ground, and put them on standby with the other children.

At 3 p.m., the information that an over 6 m tsunami had arrived came from the disaster radio of Kesennuma city. So I consulted with the deputy head teacher and decided to evacuate all children to the second floor of the school. If a tsunami is about 2 m expected in the case of a Miyagi coast earthquake, we don't have danger of an arrival of a tsunami. However, I judged the first floor wasn't enough to be safe from a 6 m tsunami, and decided to take refuge on the second floor. Of course, a stockpile for disaster evacuation was provided at the gym.



This is the situation of the school ground after the water drew off several days ago. The red thing at the middle left is a fire engine that had sunk in water. Rubble was piled up in the direction of the gym.



This is the situation of the front of a staff room (the school ground). Rubble (cars and demolished houses) are piled high.

At the time, local residents and kindergarten children took refuge to our school one after another. We had not trained for disaster evacuation with them, but they could take refuge without confusion because they had trained to take refuge to the school sometimes. I and the deputy head teacher divided to the center and the edge of the school ground, guided the evacuees, and then I decided to run back to the school at the end. A lot of people had watched our guidance from the balcony of the second floor. At about 3:30 p.m., the tsunami had become likely to get over the embankment near the school. When we were trying to enter the school because most people had already entered the school, a car stopped and an old man who could hardly walk came out from the car. I tried to carry him piggyback to the school building, but it wasn't easy to walk because of his weight. At that time, the people in the balcony shouted, "The tsunami is coming, run away right now"

However, I could not go forward easily because the old man was bigger than me. At that time, the curriculum coordinator who similarly had done evacuation guidance came running from the school building and lent me his shoulder. Thanks to him, I could enter the school building at last. The waves had already entered the school building and approached the stairs. The deputy head teacher failed to escape and could not enter the center school building, so he took refuge in the east school building, a separate building with 30 evacuees.

Altogether, 350 children, 120 local residents, 80 infants, 50 teachers and staff—the total of 600 people—took refuge in the center school building where I also took refuge.



The situation of a staff room looked at from the school ground.

3 Immediate Post-Disaster Responses, and the School's Role

At 3:36 p.m., the tsunami completely got over the embankment, entered the school yard, and got into the school building with cars, houses, ships, gas cylinders, and every possible kind of thing. All cars of the evacuees, including the cars of the school staff, were swallowed up by the tsunami.

I instructed children and infants to be on standby in corridors and so on. The children had been frightened because aftershocks had happened many times, so the adults, including the school staff, had supported them. The fluorescent lights in each classroom were suspended in midair and likely to fall because of the earthquake, so I instructed the school staff to remove them. At the time, the tsunami became stronger, swallowed up the first floor and was likely to approach the second floor. I had watched the tsunami from the veranda of the second floor, judged that the escape to the second floor wasn't enough to be safe, and instructed everybody to take refuge on the third floor. In order, children, the old, and adults entered the classrooms. People who could not fit in the rooms had to wait in the hallway. Although the tsunami had surged many times, it fortunately did not reach the second floor. Some local people requested to take refuge on the roof, but I could not open the door of the roof because the key was kept on the first floor. Then I and the staff slammed ourselves against the door, broke the window, and finally made sure of the way to the roof. After that, many people went up to the roof and watched the tsunami.

Night was approaching gradually. To grasp the situation of the evacuees, I instructed that a list be made in each classroom and put up in the hallway. It started to snow outside, and the temperature was falling. There were no blankets, so we removed the curtains of the each classroom and made, centering on infants and the lower classes, persons warm themselves with the curtains. We utilized whatever exercise clothes, etc., we could find. We asked the adults to endure the cold, and people who were in poor condition preferentially entered the classrooms.

Of course we could not use electricity and water services at all, and mobile phones also could not connect. Under these conditions, we could not make contact with the outside at all. However, some people involved in the media took refuge to our school and let the outside know that we were all right. I got to know this at a later date.

Although the water remained still and the tsunami had repeated surging and drawing many times, the number of times the tsunami had overcome the embankment near the school became less. However, debris including houses and boats rode the flow and were traversing the river many times. Some people were drawn into the flow and screamed



The situation of a staff room backward (the west side).



The situation of a staff room forward (the east side).

“Help!” but I could not do anything. What I could do was just say, “Don’t give up!” That was the moment I felt how powerless human beings are in the face of a disaster.

Evening came and it got dark, and I gave instructions for the night. I gathered representatives of the school staff, the local residents, and the kindergarten children in the classroom on the second floor where I had been based. The instructions had three points: first, when the children slept, they should face their heads toward the blackboard; second, when a child went to the toilet, an adult should accompany the child; third, do not show the children outside as much as possible. The base of the instruction was that the adults softened the fears of the children and protected their lives. Night came on, it continued to snow, the temperature fell increasingly, and the cold became bitter. Then, another fear was approaching. It was the fire that traversed the river. The sky was reddened by the fire that occurred in the bay. The fire spread to debris, rode the waves and traversed near the school many times. When I thought about if the fire spread to the school, I found a member of a local fire brigade in the evacuees and consulted him about the matter. He said, “Though there is still water up to about the waist, when the fire spread to the school, let’s carry the children piggyback by adults and escape.” It was lucky that the fire did not spread to the school and we did not have to put the advice into practice. In this case, the base of the decision was also “an adult would protect each child.”

In the night, children in the higher classes at school took a lively part in being kind to children in the lower classes. I found it helpful that the children made simple flashlights with batteries and miniature bulbs that had been used in science classes. I went to watch the third floor sometimes. Although the aftershocks continued, the adults had kept supporting the children and the infants; they had been working hard. It was fortunate that the room was a little warm because there were many people in the small room. That was a help in enduring the cold.

At the time, there were some people who became indisposed. So I let a nurse-teacher be permanently stationed at the only carpeted room, the music room, in our school as an extraordinary health center. There was a doctor among the evacuees and I asked him to give sick persons medical care in the night. I was on the second floor and felt that it was bitterly cold, but newspapers tempered the cold. I could keep out the cold by twisting the newspapers around in my underclothes. In this condition, I hoped the day would break as soon as possible.

Little by little the day was dawning and I came to see the situation outside. The schooyard was a heap of rubble and water still remained. That was a very serious condition. The night snow had stopped, the sun was coming up, and the horrible night had passed away.

I was ready for several days of refugee life. Although the knee-deep water remained in the way to the gym, we carried emergency supplies such as blankets from the gym with male staff as central figures and local adults. I could contact two members of a local fire brigade at a little after 8 o’clock, and I let the city office know the situation of our school at the time and asked for rescue.

Although we didn’t have any drinks or food, there were some water in the emergency supplies, and we could supply babies or sick person with the water. At about 10 o’clock, bottled soft drinks and so on were provided by the president of a local company, “Urban.” Though the drinks were not enough for all, I could let all drink a third of a bottle. I felt that these drinks were exactly “life water.” At that time, it was the chair of the PTA who came quickly when the water was still remaining at the morning and displayed leadership. At about 12 o’clock, a guardian who was a store manager of a convenience store and also hit by the earthquake delivered 16 corrugated boxes worth of food. All evacuees could eat confectionaries and so on. I am thankful for these two donations.

At about 1 o’clock, I was informed to let all evacuees move to a municipal gym because our school building was dangerous by the judgment of the mayor. The movement by jeeps of the Japan Self-Defense Forces started from about 3 o’clock. Although the ankle-deep water still remained, Self-Defense Force officials carried the evacuees piggyback and let them take the car like shuttle transportation. Many guardians took the children from the early morning, but there were still 400 people in our school at the moment. At about 5 o’clock, we could send all evacuees including the suffered school staff off to “K-wave” (the municipal gym).

I instructed the other school staff to stand by at home and the school staff who could work the next day to come to school the day after. The long day of horror went on like this, and I could finally go home at about 6 o’clock.



The situation of the inside of a principal's room looked at from a passage. A bookshelf and a safe fell down sideways in the tsunami.



This is one of the safes that fell down sideways.



These are several lists that remained in the safe (a portion of attachment lists).

4 Engagements Aimed at School Reopening

The school building was damaged from the disaster, and it was difficult to say when the school could restart at the school building. In this condition, we started to search for papers and fixtures and so on from among the sludge. The school building was covered in sludge, bad-smelling from Pacific fish and cuttlefish and so on, water still remained, so the work did not progress easily. Yet we devoted our energies to confirm the safety of the children. The children who were handed over directly after the earthquake, the children who took refuge to somewhere after the second shelter—there were many children that we could not make contact with like such children. We could gather information only on foot because we could not use information tools, telephones, and so on, and the cars of the school staff were carried away by the tsunami.

I went to the City Board of Education about everyday on foot, reported on conditions, and received instructions about the future course of action. On the 14th, 3 days after the disaster, I was instructed to restart the function of a staff room at Kujo elementary school, and began the work at the school that was necessary for reopening of the school. The work at Kujo elementary school was safety confirmation of the children. The staff who could go to work worked, the other staff who could not go to work were equated as performing safety confirmations at homes or volunteer work at shelters, etc., and so were considered as working. Safety confirmation was done by mobile phones, going around to shelters or displaying leaflets at large retail stores. On March 23, we held a completion and graduation ceremony at Zhounan junior high school, but we had not been able to confirm yet the safety of one girl.

After that, resumption of the school at the east building of Kesennuma elementary school on and after April 1 was decided by instruction of a city board of education. We could receive a lot of support by a City Board of Education, Kesennuma elementary school, guardians, former staff, the Self-Defense Forces of Japan, volunteers and so on. Thanks to them, we could carry necessary goods for resuming the school, including desks and chairs, and prepare steadily. Through school attendance was mandatory on April 15, we held the opening ceremony on April 21 and the entrance ceremony on April 22. Although the number of children in 2011 was supposed to be 350 according to the plan before the earthquake, we resumed classes in 2011 with 223 children.

5 School and Local Community Cooperation

Our school had always kept evacuation assuming a tsunami in mind because we are located near Okawa river. There was also a common consensus that our school would play a role as the first shelter in an emergency with local residents' association, the association for crime prevention, and the local fire brigade. And the kindergarten near our school had trained to take refuge to our school some times. When we had an earthquake two days before the big earthquake, local residents and infants actually took refuge to the gym. When there were the earthquake and tsunami in Chile in February 2010, we evacuated people to the second floor of our school.

Through actual experience and training like this, it was decided to take refuge to the school in an emergency, but the stockpile was useless because these were stocked on the second floor of the gym. So I was thankful for food and drink supplies by "Urban" and 7-Eleven. Although we had not discussed things sufficiently beforehand, we could communicate with these people well in various situations. Through this big disaster, it made me think of the importance of connections with the region. I have a recognition that our school history is with the development of the region, the region having been formed with the school as the central figure, so I think that our school background was brought out the best in this case.

6 Issues and Prospects

In this big disaster, I experienced spending the night in the grip of anxious fear. After that, thanks to the support of various people, we could spend a year as "South Kesennuma elementary school" by renting a room. It was a year in which I have felt serious and happy. I want to thank all of the people from the bottom of my heart.

It was very regrettable that we had a victim in the disaster; I cannot regret that enough. Not to waste this experience, we should keep children at the school, and not hand them over to their parents until all related warnings have been classed off completely.

In relation with the region, I think that we could help a lot of lives by making friendly relations with residents' associations and so on. In the future, I want to do school management while performing joint evacuation drills, etc., with the residents' associations in mind.

At last, it is the importance of "life" that I thought about consistently through the experience of the disaster. What I can tell children and school staff in common is to say, "Take it easy, and don't put a strain on!". I want to aim at regarding "life" as the basic fact, setting a high value on human social ties and doing school management.

Kujo Elementary School

School Crisis-Management and the Great Eastern Japan Earthquake

ONO Hiroyuki, Principal

1 Pre-Disaster School Overview

There are 316 students and 20 school employees (including teachers) in Kujo Elementary School. The school stands on a hill site in the west part of Kesenuma City. Consisting of flatland and an overlook from the height, Kujo Elementary School is surrounded by rich nature. The mountains and forests are a part of the people's lives here, and the area has created many historic sites over its long history. The Prefectural Kesenuma High School stands close by as well.

Neighbors of the area cooperate to protect the safety of school students, and guide traffic during times when children come to school or go home.

We put a great deal of importance on academic development, and help the students to acquire the basis of each subject through short study time in the mornings and "power-up (study backup)" time after school.

2 Immediate Post-Disaster Situation

1 The Earthquake

When the earthquake happened, first grade students were cleaning their classrooms, second grade students were heading home, and third grade students and above were still having class.

I was in the teacher's office, standing near the closest door to the schoolyard. I needed to find the safest timing to address evacuation orders. The vice-principal stood in front of the public address system, and the other teachers were on standby in the teacher's office. The continuous violent shaking made papers and books scatter all over the office. The ground shook for such a long time, we worried the school might collapse and students may be buried in the rubble before being able to give orders to escape. I was frightened of the danger I was in as well.

First grade students were in the middle of cleaning, and had carried their desks outside the classroom; they could not take the way of keeping themselves safe under the desks. They took action over orders, and started to leave the building. The earthquake was still continuing. The thought of putting students in greater danger by giving orders to evacuate before the shaking stops completely, prevented us from addressing the other grades to do the same. However many teachers were dubious of why the evacuation orders were taking such a long time to be addressed.

2 In the tremor

When we finally tried to give the orders to evacuate, we found out that the loudspeaker was broken and hand-held speakers could not be heard. Some classes had headed outside on their own decisions. Teachers went around the school and assisted action in other classes.

During the earthquake, each grade took the following actions.

First grade: first grade students were late for their usual time to leave school, cleaning classrooms. Desks and chairs were moved to the hallways or in the room next to them. Things such as TV racks shook violently. Teachers secured the exit and gathered the students close to them. Without anything to protect their heads, they evacuated before the orders were addressed.

Second grade: Some second grade students were already heading home. They headed back to the school with the assistance of neighbors. Teachers who had finished evacuating first graders, led a few second grade students out of the toilets and checked every second grade student.

Third grade: third grade students hid under their desks as soon as they felt the earthquake. The shaking stopped



Equipment lay scattered in the staff room

but they could not hear any announcement. As they saw other classes leave the building, they did the same after putting on a *bosaizukin* (padded headgear worn during earthquakes and other disasters as protection from falling objects).

Fourth grade: Teachers and students all hid under the desks. The bookshelves near the veranda moved and the class notice board fell off the wall. Things were scattered all over the floor and made it difficult to make way for evacuation. They secured exit towards the schoolyard, and turned off the stove. They left the building after the earthquake stopped.

Fifth grade: The violent shaking made hot water from the stove spill on the floor. A few students panicked and started to cry. They felt danger when they saw a window about to fall off. Stairs were flooded with leaking water from the water tank when they headed outside.

Sixth grade: Students were using sewing-machines during home economics class, when tables and desks moved greatly. Some students got stuck under the desks because of the trembling. The chimney fell off and the dim bulbs were about to as well.

They used the stairs inside the building because desks that had moved during the shaking were blocking the emergency stairs near the veranda. Teachers held the fire shutters open and secured emergency paths for the students.

Special Support Education Class: Waiting for evacuation order under the desks. They started to escape after hearing the curriculum coordinator's orders.

Nurse's Office: One student was there. The nurse and student tried to cheer each other up. They evacuated at the order of the principal.

The carpenter, who was in charge of pulling down the school warehouse, was not aware of the earthquake until the school engineer went to inform him. Soon after, water from the water tanks in the school building started to leak. A part of a wall broke down. With the curriculum coordinator, I went to the water tank room to stop the water. Climbing the stairs felt very dangerous, as they were flooded with water.

3 After all students evacuated

There was a major-tsunami warning, but the disaster-response government wireless systems gave us no further information. Families came to pick up their children. We thought returning students to their guardians was the safest decision. We checked with the students, when people other than the student's families came to pick them up. The best decision at the time must have been to keep the students and their guardians waiting at the school for a while. We never imagined that students would be in an accident with the guardians that came to pick them up. We could not imagine what the big tsunami was actually like either.

As we were handing over the students to their guardians, many people came to evacuate to the school.

4 Students gathered together in schoolyard to keep off the cold

Snow started to fall, while handing over students to their families, so we put up a tent and put the rest of the students inside to keep off the cold. We had no information of the harm of cities that the tsunami had hit. More and more cars of evacuees came to the school, but Kujo Elementary School was not in danger of the tsunami. A few students still waiting for their families were left in care in a residents' union building (*jichi-kaikan*). Later that night we checked that all students were able to return to their families.

3 Immediate Post-Disaster Responses, and the School's Role

Evacuees started to gather as soon as the earthquake stopped. It started to snow, and we started fire in the schoolyard with scrap wood to keep warm. Evacuees and school employees slept inside their cars or, in the near residents' union building in the Kujo 9th ward. Few slept in the school gym.

The next day, the home economics room and the conference room in the school was arranged to be the refuge shelter. We decided to put commodities in the nurse's office. At the time, there was almost nothing we could call commodities. We managed to keep off the cold with blankets that the evacuees had brought with them.

We were still able to use the toilets in the school gym and the school building. We borrowed a tractor for lighting from one of the city council members living close to the school,



Immediately after the earthquake, Tents and car of evacuees

which allowed us to use the toilets at nighttime, and charge cell phone batteries.

Soon after the earthquake, we handed out commodities such as rice-balls and pickled vegetables given to the school from the district, and the city. Grocery stores in the school district also supplied food for us. We were not sure when we could secure our next commodities. Our school employees worked to hand out the supplies equally and deliberately.

City employees took over these jobs later. We put up a message board, and started to operate as a full-scale evacuee shelter.

4 Engagements Aimed at School Reopening

March 13 (Sun.)

School employees had a conference concerning the reopening of the school. Employees were also assigned a part in the evacuation station, and to work smoothly as a team, we decided all employees must keep principal and vice-principal well informed.

March 15 (Tue.)

School employee conference on the Graduation Ceremony held.

March 17 (Thu.)

School Principals of the city attended a conference. Employees cooperated to make phone calls, home visits, and put up posters to notify that the Closing Ceremony and Graduation Ceremony were to be held. Check of students' safety.

March 24 (Thu.)

Closing Ceremony of the school term/Graduation Ceremony held.

April 6 (Wed.)

Checking of safety of roads to the school. Started preparation for Opening Ceremony, and Entrance Ceremony held. Started returning students' belongings that were left in the school. Employees cleared the school library and drawing/manual arts preparation room. Check of students' safety (second time).

April 14 (Thu.)

Special School day. Introduction of newly transferred students and employees, safety guidance, check of student's present family situation was done. Homework, in place of study at school, was assigned.

April 18 (Mon.)

School employee conference held. Preparation for Opening Ceremony and Entrance Ceremony.

April 19 (Tue.)

Preparation for Entrance Ceremony held.

April 21 (Thu.)

Opening Ceremony of the school term held. School let out after fourth period (2~4 grade students) Distributing station for food and other goods changed from Kujo Elementary School to each district. 60 students transferred to Kujo Elementary School.

April 22 (Fri.)

Entrance Ceremony held; 64 new students admitted to the school.

5 School and Local Community Cooperation

The chair of the residents' association worked to put up evacuation shelters in residents' union buildings in each district. Neighbors volunteered to bring supplies such as food from their homes to share at the residents' union building.

Kujo district 4 put up a refugee shelter in the residents' union building. Students still waiting for their parents were left in the care of this shelter. Frequent food supply and exchange of information among the evacuees were held here.

Kujo Elementary was an evacuation shelter and a place to for food supply to the neighbors. (We handed out to more than 300 meals to 100 people)

We were able to work on when reopening the school, when the residents' association started supplying food and goods in place of Kujo Elementary.

The district disaster prevention association and children's welfare commissioner always cooperated to watch over children and secure their safety.

The chair of the residents' association frequently visited school events from before, and had helped to give advice to the school. This relationship helped the school and the residents' union to cooperate and work out the best for the evacuees in the disaster.

6 Issues and Prospects

1 Issues

I followed the manual for the earthquake only. I had sent the students home with their guardians without calculating the consequences of the tsunami, when, although beyond expectations, I should have moved equal to the occasion.

2 Prospects

This disaster has reminded us of the need for the school and the residents' union (*jichikai*) in each district to work together. Building strong relationships is essential in daily cooperation.

The hard work of school employees at school evacuation shelters brought stronger trust to the school among the area.

There is an urgent need to make and teach new disaster manuals supposing disaster in different situations. Students need to be able to secure their safety in their own decisions outside the school as well.

**Face the Struggle, and Overcome,
Shishiori Elementary School!**

ONODERA Norishige, Principal

1 Pre-Disaster School Overview**1 The number of the students**

grade	1 th	2 nd	3 rd	4 th	5 th	6 th	Special support	Total
Students	58	48	56	63	59	69	3	356
Classes	2	2	2	2	2	2	2	14

2 The number of the teachers and the staff

Principal	Vice principal	Teachers	Part-time teacher	Health care teacher	Clerk	Caretaker	Special support staff	Total
1	1	16	1	1	1	1	2	24

3 The school district

This district is located in the north-east part of Kesenuma city. There is a long and narrow level land, which runs north and south along with the Shishiori River basin, the mountains regions surrounding the river, and a bay at the mouth of the river in this district. There are stores, residences, marine-products processing factories, which form the downtown in the north-west coastal area. The east coastal area has a lot of shipyards and associated companies. Also, this district much nature—the sea, mountains, and rivers. The school is located in the central area of this.

4 Our unique education

Since Kesenuma city associated in 2006 with the Research Center of International Understanding in Education of the Miyagi University of Education, three elementary schools in the districts of Shishiori middle school—Shishiori elementary school, Urashima elementary school, and Shirayama elementary school—have been taking part in the English education promoting activity designated by the city and the prefecture. Also, Shishiori elementary school has been working on international understanding education and environmental education since it joined as a UNESCO School in 2008. Moreover, this school was registered as an ESD (Education for Sustainable Development) activity-group in the Sendai area RCE (Regional Center of Expertise), and has been taking part in ESD activities.

5 The construction of the school

The new school building was built on December 13, 2010, which the residents had been longing for. However, the earthquake happened just three months after the ceremony of the new building. The gym was being built at that time, and it was supposed to be finished in June 2011. The gym was completed in September, and the ceremony for the delivery of the key was held on September 7, 2011.

2 Immediate Post-Disaster Situation

1 The evacuation of the students

① Students who evacuated

1st grade students had already gone home, but students who joined the afterschool-care were still at school. The rest of the students were in class so they evacuated under the teachers' guidance.

② The places for evacuation (shelters)

First: the schoolyard. There was a report from the city informing a tsunami warning during the evacuation

Second: The hill on the west side of the school. The students were handed over to their parents because of their request.

Third: The prefab office of a construction site a few hundred of meters away from the second shelter.

Fourth: A temple 1 kilometer north of the school

Fifth: Kohuku temple another 1 kilometer north of the fourth site. This place was the final shelter, so 145 people including students, parents, and other residents stayed there for three days.

2 The damage of students

① The victims

Three students died (6th, 4th, and 2nd grade students at that time. They are all siblings.)

Since they were found near their house, it is thought that they were hit by the big tsunami on their way to home from the shelter place with their grandfather by car.

② Missing people

Three people (two 2nd grade students and a kindergarten child at that time).

One of them went home from the second shelter with his/her mother. Another went home early after the 3rd period.

The other was a kindergarten child at that time; this child is enrolled at our school as of April 1, 2011.

③ The damage conditions

60% of the students' homes were completely destroyed, half destroyed, or partly destroyed.

3 The damage of the teachers and the staff

① The houses of four people were completely destroyed.

② Cars they were using for commuting were all unusable because they were caught in a big tsunami at a parking lot.

③ Private PCs all became unusable.

4 The damage of the school

① It had been three months since the new building started to be used. A 140 centimeters tsunami swept toward the first floor, and nine centimeters of mud piled up in all the floors in the building. All rooms on the first floor were damaged terribly. Desks in all the classrooms and the staffrooms had fallen and broken, and rubble had flowed into the rooms.

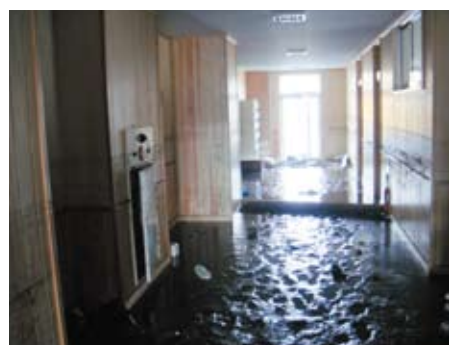
② Broadcasting equipment, a fire alarm, a stove-integration central control board, an emergency watching board, and defense security equipment on the first floor, closets and beds in the nurse's office, and teaching materials and other equipment in the materials office all became



A parents' car that flowed into the hallway in front of the principal's office



The condition of the staff office



Sludge piled up in a hallway



The special support classroom

unusable. Besides, all other brand-new equipment for the new building flowed out, or became unusable.

- ③ A fireproof safe (several hundred kilograms) in the principal's office fell down, and diplomas and all other certificates kept in the school were covered with mud.
- ④ School supplies, such as keyboard harmonicas and sportswear left in the classrooms of 1st grade students became unusable. Since all students were evacuated with the footwear they wear inside the school, their shoes at the entrance were carried away by water, or were covered with mud.
- ⑤ The damage was so huge that it is impossible to list all of it.

5 The damage of the area

Residences in the south area within two kilometers below the school (Kesenuma bypass) were completely destroyed because they were carried away by the tsunami or burned by fire.



The damage in the Shishiori area (the JR Osendo line Shishiorikarakuwa Station can be seen beyond the ship)

3 Immediate Post-Disaster Responses, and the School's Role

Since our school was hit by the tsunami, it wasn't used as a shelter.

4 Engagements Aimed at School Reopening

1 The confirmation of students' safety

We had major troubles confirming students' safety. We could not get in touch because phones were not available. The phones in the school had flown out, cell phones were not working, and also we could not charge cell phones because there was no electricity. Also, there was no transportation because the school staff cars were unusable. Besides, it was hard to find usable roads because rubble was scattered, or accumulated on the streets when we walked to confirm students' safety. The main reason for our difficulty in confirming was because homes and communities disappeared and there was no information to tell where all the people were. It took a long time to finish confirming all students' safety.

2 The restoration of the school facilities

We could not deal with the rubble in the schoolyard. The priority thing to have students come back to school is to restore the first floor (removal of the mud). First, only the teachers and the staff started this work, but we were making less progress than we had expected, and we had no idea how long it was going to last. Since parents were also suffered, people in non-damaged areas helped us to restore.

3 Securing commuting roads and pathways

There were enormous obstacles to securing the commuting roads because the school area was destroyed, the students were evacuated to evacuation sites not only in the Shishiori area, or they were evacuated to their relatives' or acquaintances' houses. Also, it was extremely hard to secure commuting ways because all streets were filled with debris. Altogether, 54 students left our school because they lost their homes, or their parents lost their jobs. The prefecture the biggest number of students left for is Fukuoka; more than ten students left our (Miyagi) prefecture.

4 Contacting parents

Contacting parents proved to be a major challenge. In order to tell them that the school would begin and other

important information, we posted notices at the evacuation places and stores that the parents were likely to go. Not all parents, however, could be contacted.

5 The support from many people

The first restoration was of school facilities. We completed removing sludge with a lot of support from people in the region. Since the school was not an evacuation site, relief supplies were not provided at first, but school supplies and clothes started to be delivered later. So many people, including people living in the region, all over the country, and in foreign countries supported us to resume the school. This support is still going on and we really appreciate it. This support from so many people has given students courage, hope, and vitality, and has also cheered up teachers.



We could decorate a bamboo and windsocks for Tanabata festival with items presented by this community and other regions in Japan. Parents and people in the community joined in decorating Tanzaku.

5 School and Local Community Cooperation

We understand that our school belongs to this community and we owe the current educational activity to people in this community. Since this school was not a shelter, restoration of the school facilities was a big problem. One of the biggest challenges to get the students back to school was to remove sludge. It was too hard for only the teachers to remove all sludge in the school buildings.

So we visited a leader of the neighborhood self-governing body in a non-damaged area, and asked for support. People from that neighborhood kept confirming the safety of the students, and working on removal of sludge. Thanks to the support from the people there, the school got cleaned up, and we appreciated it.

Also, we appreciate the support from Kofuku temple, which we used as a shelter from the day when the earthquake happened. Many people from this community, including the chief priest, his wife, and the leader of the self-governing body take care of food, such as making 300 rice balls for us. They offered all the necessities, such as new blankets, and heating oil. We owe people in the community a great deal. So we hosted some events, for example, school visitation by grandparents, and a sports festival for the community to show how much we appreciate the support from the community and parents. Also, we would like them to see the school and the students' activities, and take them to some events in the school. People in the community worked for our school, and helped us very hard. We realize again that this community is indispensable to our school, and appreciate the support from the community every day.



6 Issues and Prospects

1 Issues

- ① We carried out a drill for evacuation two months after the earthquake, and made sure of understanding how to run, where to go, and how to hand over the students. We changed the evacuation manual, saying that the students should take refuge on a hilltop on the west side of the school, not the first or second shelter when a big earthquake happens. Also, since it is difficult to hand over the students to their parents who come and pick them up, we planned not to hand over students to their parents. However, there are concerns about not handing over, so we changed the manual again to have the parents with the students until we make sure the safety of the students. We need to make understanding with the parents, and people in the community about it.
- ② Cell phones were disconnected from right after the earthquake, and we could not get or send information for a while, which made us more worried. We need to find ways to contact people in an emergency.
- ③ Some restoration of school facilities, such as repapering the floorboards and wainscots, has not started yet. The first floor is still unusable. Also, since the fire alarms are not working, we immediately need to find ways to secure the students' safety, and to contact with them at an emergency.
- ④ 54 students had to change to other schools as of the end of the school year (right after the earthquake). Moving in and moving out kept happening after that, which had an influence on how many classes and how many teachers there should be.

2 Prospects in the future

We have a huge number of problems because the school itself and the school district were damaged. It is important for each teacher and staff to realize that the school belongs to the community, and make sure that the educational activities and emergency education are going on with the community. Now, half of the students' homes were damaged, and they are living in temporary housing. Half of the students have applied for financial aid. They cannot see how things will turn out, and worry about their lives in the future. That is likely to have an influence on the students' minds, and also entails questions as to whether affected students are to be considered as still residing in our school district. We really hope that they can immediately restore the lives they once had.

Urashima Elementary School

Enabling our School, Which Has Moved Forward with the Local Community, to Once Again Move Forward with that Community

HAYASHIZAKI Akihiko, Principal

1 Pre-Disaster School Overview

Urashima Elementary is located in a slightly elevated spot 41 meters above sea level on the Eastern coast of Kesennuma Bay. The school district is made up of four neighborhoods (Ooura, Kogoshio, Kajigaura, and Tsurugaura) dotted with about 240 households strung out along a prefectural road facing the bay. The majority of the kids' parents or guardians have office jobs, but there are also families in the area who have long made their living by growing seaweeds such as wakame and konbu. Additionally, there are many households where three or four generations live under the same roof, so grandparents play an important role in raising the children—they also have an understanding of the education kids receive at school and are supportive on a daily basis.

At the time the earthquake hit, the school was small-scale, consisting of 32 children enrolled in four classes (nine sixth-graders, seven fifth-graders, seven fourth-graders, three third-graders, five second-graders, and two first-graders) and nine faculty members.

Due to the area's geographical conditions, Urashima Elementary and the surrounding community have a heightened sense of earthquake and tsunami preparedness and have been carrying out scheduled earthquake and tsunami drills and preparedness programs. Here are the activities undertaken in recent years:

- 2004: PTA Evacuation Camp
- 2005: Tsunami Preparedness Education House Call Lectures
- 2006: Tsunami Drill on School Grounds
- 2007: Evacuation Drill on a Day Off
- 2008: Evacuation Drill on the Way to School
- 2009: Evacuation Drill on a Day Off
- 2010: Evacuation Drill on the Way to/from School



H16 PTA Evacuation Camp



The state of the 6th grade class room

2 Immediate Post-Disaster Situation

On March 11th (Friday), at 2:46 p.m. when the earthquake occurred, the first and second graders had just been let out and everyone was waiting in the center of the schoolyard for the older kids to be done, so they stood by in place. Third graders and older were in their sixth period in their respective classrooms and took initial sheltering instructions from their teachers. Once the quaking had stopped, they were moved to the secondary refuge location in the schoolyard; everyone was safe and accounted for (32 children, seven faculty [of the other two, one was out on business, one had gone home]).

To the extent that the only damage to the school was cracks in the outer wall and in the floor of the annex, it was not severe. The gym fared similarly with cracks in a number of places, but no major damage confirmed.

Due to the school's position on a hill, and the surrounding area being covered by trees, we didn't have a grasp of the state of things nearby directly after the earthquake. We just knew from the large tsunami warning and from what we heard from locals when they came to take refuge that this tsunami would be different from ones we had

experienced previously. In the evening, the assistant principal was able to see it when he looked out over the bay from near the school gate. Also, when evacuees left to put out the fires in their homes, they witnessed the bay looking like a sea of flames.

In the end, 90% of the district was damaged—although there were no lives lost among students, guardians, or faculty, 28 children’s houses were washed away or mostly destroyed. Additionally, three members of the faculty lost family members and four faculty members’ houses were completely or partially destroyed.



Kogoshio following the tsunami and fire

3 Immediate Post-Disaster Responses, and the School’s Role

March 11th (Friday)

- 14:46 ● The earthquake occurred: We gave everyone initial sheltering instructions. The principal and homeroom teacher (curriculum coordinator) secured the first and second graders in the schoolyard. The assistant principal handled radio instructions within the school.
- 14:50 ● Large tsunami warning issued, evacuation instructions: Everyone was sent to a secondary refuge location on school grounds, personnel were accounted for and secured. No major damage to either the school building or gym was confirmed.
- Because our school is designated as an evacuation site for the area, the gym was set up as a shelter for the many local residents coming to take refuge directly after the earthquake. At the same time, the Kogoshio disaster preparedness group spearheaded efforts at the shelter to self-organize and cooperated with the school to manage the situation. Sick and bedridden people were given priority placement in the gym, while we asked that healthy people stand by in their cars or in the schoolyard.
- 15:30 ● Due to the risk of the school building and gym collapsing in an aftershock, we erected three tents in the center of the schoolyard and took protective measures against the cold, starting with infants and children. Going a step further, we surrounded the tents with sheets.
- 16:00 ● Electricity and water were cut off. We confirmed that we were unable to use phones or computers.
- 17:00 ● Due to a big influx of black smoke and sparks as the fire broke out along the coast, we had the children take refuge in the gym.
- 19:00 ● Due to concern about the gym possibly collapsing in an aftershock, we once again moved the children into the schoolyard. They protected themselves from the cold by laying mats down inside the tent and using blankets.
- 19:30 ● To defend against the cold, we had the children move into the first and second grade classrooms on the first floor of the school building and spend the night there. Many evacuees (ready with their shoes on just in case) spent the night in either the gym or classrooms, or outside with a bonfire.
- Because of roads collapsing due to the tsunami and fire, travel and communication by land were cut off and we became isolated. There were about 100 blankets stockpiled, but that was not enough for everyone to get their own. People near the school whose houses were not damaged donated blankets and other equipment.
- For the first day we were not able to get any food or water.



Two evacuees who washed up from the opposite shore the day after the earthquake

March 12th (Saturday)

- 8:00 ● We accepted as much food, fuel, and other supplies as people in the vicinity were able to donate. We also began boiling water from the marsh near the school to use for drinking. 200 cafeteria-style meals made from stockpiled foodstuffs (ready-made meals heated in hot water) were rationed out to the evacuees, who numbered about 280. There were some people who didn’t get any.

- 9:00 ● Along with establishing shelter HQ in the principal's office, we organized into teams based on function (HQ, relief, cooking) and age (youth, prime of life).
- We wrote "SOS" in the schoolyard with coal and were discovered by a Maritime Self-Defense Force helicopter. After that we were able to get necessary goods (water, food, blankets, fuel, etc.) delivered via helicopters from the Maritime Self-Defense Forces, Ground Self-Defense Forces, the Tokyo Fire and Disaster Management Agency, and the US military. From then on the shelter's cooking team took charge of using our food rations and we were able to eat about two meals a day. (Assuming we were in for a long haul, we tried to conserve as much as possible.)



A delivery from a Self-Defense Force helicopter that landed in the schoolyard

March 13th (Sunday)

- 9:00 ● We prioritized infants, the sick, and the elderly for helicopter evacuation. Since the destination of the helicopter was uncertain, even if we evacuated the children, there was no guarantee that we'd be able to hand them over to their parents or guardians upon arrival, so we had them stand by in the gym to be turned over directly.

March 14th (Monday)

- 6:30 ● The principal and people managing the shelter crossed the mountain ridges on foot to Shishiori Junior High and Elementary School to go check on the state of the town.
- 9:00 ● We started the process of handing children over to their parents or guardians (10 of them).
- 19:00 ● A fire started on the mountain behind the school and due to the fear that it would spread to the school building and gym, all the children (22) were evacuated on foot through the rubble to the Tsurugaura Consumer Affairs Center. (Tsurugaura's neighborhood council head and three women on the teaching staff led the way.)



The forest fire advancing to the slope of the embankment behind the school

March 15th (Tuesday)

- 5:00 ● Both men on staff and evacuees used water from the pool and the pond in the garden in the back of the school to put out the fire on the embankment slope via bucket relay, preventing the spread of the fire to the school building and gym.
- 9:00 ● The principal and shelter managers went to thank the Tsurugaura Consumer Affairs Center, as well as have a supply delivery meeting.
- 14:00 ● The assistant principal and curriculum coordinator went to pick up the kids standing by at Tsurugaura Consumer Affairs Center and returned to the school without incident.
- One child was handed over to their parent/guardian.

March 16th (Wednesday)

- 7:00 ● We sent the assistant principal to report to the board of education and were loaned one of the city's emergency wireless radios.
- Five children were turned over to their parents or guardians.

March 17th (Thursday)

- Six kids were returned to their parents or guardians. Forty-one evacuees remained at the shelter.
- The principal, assistant principal, curriculum coordinator, and shelter managers discussed where and when to hold the graduation and end of the year ceremonies and decided on the 24th (Thursday) in the gym; graduation 10:30, end of the year 11:30.

March 18th (Friday)

- 14:00 ● Eleven children were handed over to their parents or guardians. Now that all the kids were with their parents or guardians, the faculty were released from the 24 hour care schedule.
- Since the school building was being used as a shelter, the principal, assistant principal, and curriculum

coordinator took turns handling accommodations.

- In the evening, the prefectural road that had been blocked was repaired and cars were able to get through.

March 22nd (Tuesday)

- We confirmed the addresses of parents and guardians and let everyone know when to return to school.
- We brought supplies into the school building and stored them in the faculty changing room, hallways, etc. Most of the evacuees were staying in the gym. A family was living in the first grade classroom and women and children were using the multi-purpose classrooms.

March 24th (Thursday)

- 10:30 ● We had the people in the gym gather their belongings to make space for the ceremonies, and then held graduation (nine graduating students attended). It was the plan that all nine would continue on to Shishiori Junior High, but instead six of them will go there and three will attend Niitsuki.
- 11:30 ● After the graduation ceremony we held the 2010 end of the year ceremony. (Out of 23 students, 22 attended. [One of the fourth graders was absent due to a cold.])

March 30th (Wednesday)

- Held a departure from office ceremony in the gym (participants included the principal, the departing health teacher, the departing rotating office staff member).
- Twenty-three evacuees remain at the shelter.

March 31st (Thursday)

- The first grade classroom was vacated.

4 Engagements Aimed at School Reopening

April 1st (Friday)

- 11:30 ● The principal, health teacher, and janitor assumed their posts.
- Instructions were given to proceed in confirming the children's places of residence and grasping their current situation.

April 4th (Monday)

- 13:00 ● The directors of municipal kindergartens and schools held a meeting.
- Its purpose was to confirm understanding of the state of affairs regarding damage to the schools, injuries or casualties among parents/guardians, etc.
 - We planned the opening ceremony for April 21st (Thursday) and the entrance ceremony for April 22nd (Friday).
 - Between April 8-18, we would establish a school day to distribute textbooks and other supplies.

April 5th (Tuesday)

- Confirmed with the people in charge of the shelter that the gym, the first floor home economics classroom in the school building, and other regular classrooms were being used as refuge and supply storage areas.

April 7th (Thursday)

- 23:32 ● Had an aftershock that registered a weak six on the Japanese seismic intensity scale of seven. Due to tsunami warnings, we were unable to go to school.

April 8th (Friday)

- 6:30 ● Went to school and checked for interior and exterior damage. (The window in the gym's bathroom was broken, a connecting corridor had shifted out of place, the former sixth graders' classroom on the second floor had cracks in the floor, cracks had opened on the eastern side of the schoolyard, the poolside had sunk, etc.)
- 8:30 ● Confirmed whether there was any injury or damage sustained by the families of staff members.



Main road faced to be submerged and collapsed

April 10th (Sunday)

- 10:00 ●Held a PTA board meeting (all board members present), took roll call, and made sure we were on track for the opening ceremony on Thursday the 21st. (Confirmed how the children would get to school, the securing of a safe route, that there are shelters on the way to school, what to do in the event the road is closed due to flooding at high tide, how to handle the time after school, etc.)
- The electricity came back on.

April 14th (Thursday)

- 9:00 ●Held a faculty meeting.
- Checked up on progress towards reopening the school. (Confirmed enrollment, places of residence, how children will get to school, etc.) Contacted the schools which will receive transfer students from us.

April 21st (Thursday)

- We held ceremonies for the re-opening of the school and the beginning of the school year (three classes and 13 enrolled children: four sixth graders, five fifth graders, one fourth grader, two third graders, and one second grader; nine faculty members).
- The children we were planning on welcoming to the school in the entrance ceremony ended up entering schools in the area to which they evacuated, so we didn't have an entrance ceremony.

April 25th (Monday)

- Started simple school lunch service.

April 30th (Saturday)

- Closed the shelter. (The final evacuee count was 10.)

June 2nd (Thursday)

- Running water was restored.

June 13th (Monday)

- Landline phones began working.

5 School and Local Community Cooperation

Already the school—not alone, but cooperating with the PTA and other regional organizations—had been conducting tsunami evacuation drills and confirming shelter locations. The community had also been independently conducting preparedness drills, checking equipment, and confirming how to organize in the event of a disaster, all of which, it can be said, paid off. To repeat, our school was the designated disaster preparedness base. However, due to the fact that at first the number of evacuees was more than double our estimation, we'll have to cooperate with the community to reevaluate the amount and type of equipment required to be prepared for the future.

Additionally, when we first converted into a shelter, self-organized teams took action to split up the work amongst themselves, so they were able to handle things jointly with the school's staff. Thanks to this effort, the shelter could offer lunch to the kids between the 21st when the school re-opened and the time the simple lunch service started.

The reason we were able to close the shelter on the last day of April was also thanks to the evacuees sharing information among themselves and being able to secure other places of residence.

However, the neighborhood organizations in three out of four zones in our school district are still non-functioning because their residents have been scattered. For this reason it has become difficult to put on joint events, like sports day, the way we did before the earthquake. With the school taking the lead, we want to get the community more involved by holding events and putting out calls for participation.

Since August, the entire schoolyard became the construction site of temporary housing for 23 households and families have started moving in. The people who live there are mostly locals, so they participate in school events and support efforts as much as they can. They have an understanding that they are on school grounds and are very cooperative. It's estimated that this arrangement will continue for a minimum of two or three years, so we'd like to spend them coexisting well.

6 Issues and Prospects

- ① It's a good thing this disaster happened on a weekday afternoon because the school/shelter was able to adapt. I wonder how it would have gone if it had happened, say, overnight or on an off day? How the school should handle things and how the school can best cooperate with the community in a case like that are big issues that still remain.
- ② Our school is a steel-frame building that was built in 1963. The only earthquake-resistant structures are the first floor faculty lounge and principal's office and the first and second grade classrooms. The other classrooms and the gym do not meet the criteria. Thankfully, this time nothing collapsed, but as part of the community's disaster preparedness we need to look into strengthening our earthquake resilience.
- ③ Due to geographical technicality, we are isolated from town and it was a huge issue to not be able to contact or cooperate with official organizations. When the school is converted into a shelter, city employees are supposed to rush over and manage the situation, but this time we did not receive any human resource support from city authorities. At the very least, we need to ensure we have some way to make emergency contact, like a wireless radio.
- ④ Because about 90% of our school district was hit, most of the households evacuated to other areas. There remain the administrative tasks of building new prefectural roads and moving to higher ground, and it's still unknown how many families will return. For that reason our school is unable to predict how many children plan to be admitted and the number of enrolled students only decreases.
- ⑤ As we prepared to re-open the school, the Parent Teacher Association was convened (all members) and we re-opened with the confirmation that there were ways for children to get to school; however, those ways mostly involved each household using their own car to go back and forth. With everyone dealing with working in their respective damaged surroundings, coming from another neighborhood to take their kids to and from school was a huge burden on families. Luckily, shuttle service was restarted and since the second semester children have been able to buy a pass to ride to school, but we would have liked to have official support from the time we re-opened like other schools in the city.
- ⑥ Along with ensuring the safety of the children's' commute to school, there was also the important issue of the safety of the staff on their commute. The provisional restoration of prefectural roads made it possible for cars to get through, but because of scattered rubble, gravel roads owing to ruined asphalt, the destruction of the tide embankment, flooding due to sunken foundations at high tide, etc., morning and evening traffic was extremely dangerous. Luckily there were no accidents, but most of the staff got flat tires (including ones serious enough to require a change of tire) not once, but two or three times, which was a large burden.

The Roles a School Plays in a Locality Struck by Disaster

TOYODA Yasuhiro, Principal

1 Pre-Disaster School Overview

Hakusan Elementary School district is situated in a mountainous area in the northernmost part of Miyagi Prefecture. Mountain ranges rise one behind the other in an east to west direction and the Shishiori River cuts through them from north to south. Farmland and houses are dotted along its banks.

The area has been known for gold mining and horse raising since the Heian Period (794 CE-1185 CE). It is said that the gold and the horses were sent to Oshu Hiraizumi and contributed to the ancient town's prosperity. In 1904 this district yielded a huge amount of gold. However, during the Showa Era (after 1926) gold mine was shut down and the main industry has been only agriculture, so most of the families earn their livings by office jobs within the city.

The number of pupils at the school reached a peak of 177 fifty years ago and has been declining ever since. There were 25 pupils when the disaster hit. The school has adopted a completely combined class system (first and second, third and fourth, fifth and sixth graders are taught in the same classroom, respectively). There were nine teachers and school staff (one principal, one vice-principal, three teachers, one nursing teacher, one office personnel, one part-time janitor, and one supporter).

The local community surrounding the school has provided a supportive environment; they have donated facilities and equipment, taught students how to play traditional Japanese drums, and held athletic meetings which assembled neighbors. Since the 17th year of Heisei (2005), the school has implemented a cooperative education movement, a reorganized version of the previous established collaborative learning, in which locals are invited as instructors to enable pupils to gain access to how to play traditional drums, local area searches, traditional toy making, and hands-on agricultural experience. The lecturers (22 in total, including school teachers) have organized and run the "Hakusan Elementary School District Collaboration Promotion Council." Among such activities is the school-wide Hakusan Drums in which each and every pupil is taught to play traditional drums during school hours. As for the activities which local people teach, participants are openly solicited and the classes are held on Saturdays.

With respect to these achievements, the Cooperative Education Promoting Award was given to school by Miyagi Prefectural Board of Education in June, Heisei 22nd (2010). With the idea that the school's ESD (Education for Sustainable Development)-based activities such as international understanding education, environmental education, traditional folk entertainment learning could be more widely disseminated throughout Japan, application was made to become a UNESCO Associated School. (This was granted in February, Heisei 21st (2009).)

2 Immediate Post-Disaster Situation

1 Pupils

On March 11, at 2:46 p.m. when the earthquake hit, all the pupils were still at school, so they evacuated to the schoolyard led by their homeroom teachers. No injuries were reported. By 5:07 p.m. on that day, all pupils had been returned to their parents. Having been informed that the coastal areas of Kesennuma district were devastated, a decision was made and parents were informed that the school would close temporarily. The tsunami did not cause any damage to the school district.

2 Faculty members

At the time of the earthquake, eight out of nine faculty members were at school, while only one office personnel was out of town on business at a prefectural branch office in Minamisanriku town. S/he took shelter in Shizugawa Junior High school. As s/he had lost his/her car in the tsunami, s/he was forced to hitchhike home and returned to Kesennuma the next day. No casualties among the school's faculty members nor damage to their houses was reported.

3 Facilities and equipment

The facilities such as schoolhouse, gym, etc., were not badly damaged. Though electricity was cut off and telephone service was interrupted, tap water and gas (propane gas) services were available. Flush toilets were disabled because they used a different plumbing system from the tap water, so bucketfuls of tap water were prepared.

3 Immediate Post-Disaster Responses, and the School's Role

1 Setting up the evacuation center

Some local people took refuge in our school as well as 17 others; these were drivers and workers from outside the local areas or from other prefectures who were passing through the prefectural road in front of our school. Three tents were set up and some route buses, which were no longer in use due to the quake, were arranged side-by-side in the schoolyard to be used as our primary shelter. In addition, Hakusan community center near the school was used as a secondary shelter for elderly people. Twenty-two people including five faculty members stayed at these two centers. March 13, the next day, faculty members prepared meals outdoor at the Hakusan community center. The primary shelter in the schoolyard was removed during that day. The faculty members stayed at Hakusan Community Center and prepared meals until March 13.

2 Use as a morgue

① Summary

How long it was used as a morgue: From March 13 to April 7 (26 days)

The number of the dead accommodated: At most 72 bodies (recorded on March 14)

A coroner: visited the school on March 14, 15, and 16.

Police personnel: 30 people maximum

City officials sent from the municipal government: Two to three people per day

How long the city officials stayed: From 8:30 a.m. to 5:00 p.m.

The school was administered by faculty members from March 13 to April 7 at teachers' office in shifts

From 8:15 a.m. to 5:00 p.m.

② Setting up the morgue:

March 13 (Sunday)

The superintendent of the Kesenuma City Board of Education visited our school at 9:00 a.m. An instruction that the gym would be used as a morgue was given. As many people would get in and out of the gym with their shoes on when they carry bodies in and out and the bodies would be put directly on the floor without coffins, it was considered necessary to protect the floor of the gym. So the school section chief, one city official, teachers, and three people stranded helped cover the floor with plastic sheets.

At 2:30 p.m., four city officials came to our school, then, at 3:00 p.m., the bodies started to be carried in. A number of police officers, firefighters, Self-Defense Forces personnel, and families of victims visited the school. The work for the first day finished at 7:00 p.m., but there were still some people coming in search of their family until 9:00 p.m., so a vice-principal made an explanation that they should come again the next day.

The bodies were laid wrapped in blankets and stuff on the floor of the gym until 2:30 p.m. on March 15 when 100 coffins were delivered by land from Hiroshima prefecture. The low temperature slowed down the bodies' decomposition, so it didn't smell bad.

March 14 (Monday)

In the morning, more detailed plans as to where to set a morgue and how to accept the bereaved were finalized. As a result, it was decided that the school buildings and the gym would be utilized as is shown in the figures on the next page.

In the staff meeting at 9:30 p.m. the following were agreed upon.

- Teachers will visit pupils' houses on March 15 and understand the situations.
- Teachers will from 9:00 a.m. to 10:00 a.m. on March 16 return to their pupils any belongings left in the school.
- The school will be closed to all unauthorized people while it is used as a morgue.
- It was decided in the meeting that during the day all efforts should be made to set up reception desks to receive and aid the deceased family members to give them information such as directions as to where to park, and so on.

3 Consideration for acceptance of those who lost their family and those who were looking for their family.

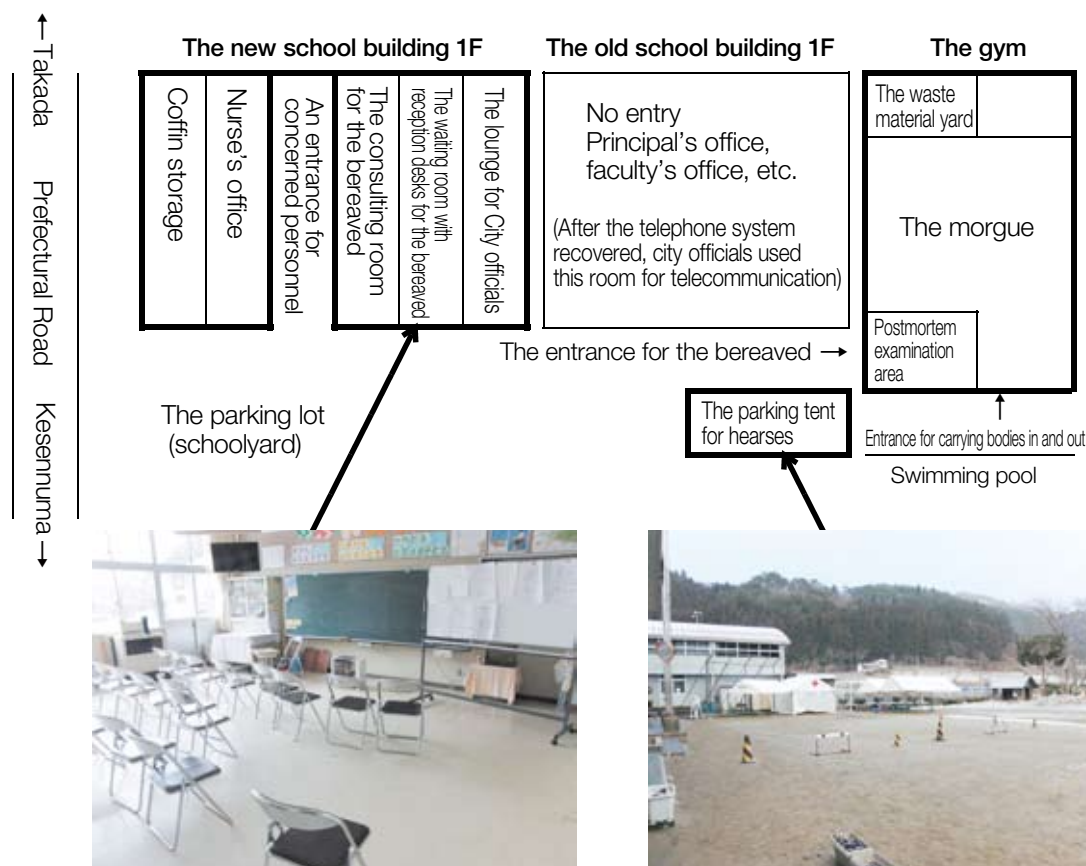
[The morgue]

① Putting up protective shields

As journalists might try to take photos of bodies and those who are seeking for their family and out of consideration toward local people around the school, the carry-in entrance of bodies and the entrance for the families were shielded by plastic sheets, so it was made sure that nobody can see inside directly from outside. Signs that prohibited taking photos were displayed.

② Erecting tents for parked hearses

In order to avoid the wind and rain and to block people's view from outside when bodies and coffins were



Layout of the school (A lounge for police officers was set in 2nd floor in new school building. Omitted in the chart.)

carried in and out, tents were put up so that trucks, hearses, and other vehicles could park directly alongside the entrance.

③ Building partitions around the postmortem inspection area

As the bereaved and seekers meet bodies in the same place as where autopsy would be done by the police, partitions were set up in the postmortem examination area so that they could not see medical examinations.

④ Placing an altar

In order for those who lost their family and those in search of their missing family to offer incense, a simple, makeshift altars were set up. Candles, incense sticks, bells, and flowers were donated by local residents.

[Reception]

① Waiting room with reception desks for the bereaved

A room away from the morgue (in the gym) was assigned as the waiting room with reception desks for the bereaved. The bereaved families were invited into the morgue only after it was confirmed that everything was ready in the morgue. This procedure made access by news reporters or unauthorized people to the morgue impossible.

Since families of the victims and those who were in search of their missing family members, relatives, or friends had to visit the several makeshift morgues scattered in the city, information on these morgues, as well as the one located in our school, was posted on whiteboards.

4 Engagements Aimed at School Reopening

1 Considerations regarding the school's faculty

As to faculty members' work, sufficient considerations toward individual affairs, health, and welfare were made. Only the principal and the vice-principal did subsidiary work such as locking and unlocking the morgue, carrying the bodies, and so on, asking other faculty members to do their normal jobs such as preparation for reopening the school, control of the parking lot, and cleaning the reception and the waiting room for the bereaved.

2 Dealing with pupils, parents, and local residents

Pupils, parents, and local people were asked not to enter the school for awhile because it would be used as an institution for disaster countermeasures. A semester ending ceremony and a graduation ceremony were held on March 24 in Hakusan community center, in which all the refugees were at instead of at the school.

Announcements for pupils, parents, and local people were made by setting up a bulletin board in front of the school. Homeroom teachers also visited every home and explained an upcoming schedule for pupils and parents. Parents and local residents did not voice any particular concerns or worries over the school facilities' being used as a morgue.

3 Sterilization of the gym after the morgue was closed

Inbound bodies added up to 72, which was the maximum capacity, on March 14, the second day. After medical examinations, identified bodies were gradually returned to their families.

On April 7, the remaining bodies were carried out to a municipal gateball playground, so the function as a morgue was completed, and clearance and cleaning were implemented by city officials.

It was decided to disinfect the gym because it is a place for education of pupils and special considerations should be made toward hygiene, and it was necessary to take the feelings of pupils, parents, and local people into account. Disinfectants delivered as relief supplies were used. Alcoholic disinfectants and chloric disinfectants were used twice respectively.

5 School and Local Community Cooperation

1 Setting up the emergency evacuation center and its management

On the day disaster struck, the Hakusan community center near the school was turned into an emergency evacuation center thanks to local people's help. The next day, faculty members prepared meals outdoors with local people for drivers and workers from outside the local areas or from other prefectures who evacuated to the shelter. Our faculty members stayed at the center and helped the refugees until March 13. In order to manage the school a few people stayed at school every night until March 31, while local people kindly helped us with food.

2 Memorial service

After closing the morgue, the president of the PTA, the leader of the District's Residents Association, and the school held a meeting, and consequently, on April 14, we decided to invite a monk from a nearby temple to hold a memorial service. Our school faculty members, the PTA president, and the District's Residents Association leader attended the service. Several enquires were made by parents and local residents after the school was restarted asking whether the school had performed a purification ritual. When we informed them that we had held a memorial service, they were relieved.

6 Issues and Prospects

1 Remaining problems

- It is necessary for the city as a whole to indicate in a guideline what duties city officials should perform when a disaster hits. It is also necessary to make it clear what faculty members should do based on that.
- It is possible for every school to be used as a morgue if circumstances require it. It is necessary for city authorities to have an idea of measurements of the gyms and other facilities at each school and figure out the capacity for usages as disaster response facilities beforehand. Calculations estimating their maximum capacity not only as morgues, but also as shelters, are essential.

[Example]

The maximum capacity of the gym's floor (approximately 280 square meters) for coffins was calculated as follows. Coffins were 180 centimeters long by 55 centimeters wide, so the estimated space for each coffin was 300 centimeters long by 95 centimeters wide, and it was predicted that around 70 bodies could be accommodated excluding the space for a medical examination room (about 30 square meters) and aisles. In fact, 72 bodies were accommodated.

However, there was an issue with carrying out the bodies because it was narrow between coffins. If the spaces

between coffins are 115 centimeters (20 centimeters more), there will be more room for that. But, in that case, the number of bodies which can be accommodated in our school's gym will be 56.

●How we dealt with the disaster this time could serve as a good example in terms of making plans regarding where to set up a morgue and how to receive the bereaved. As a morgue, the following items are needed:

coffins, dry ice, plastic sheets, packaging tape, water containers and cloths for cleansing bodies, vinyl gloves, trash bags, goods and flowers for memorial services, electric generators and their fuel, lighting apparatuses, heating and cooling appliances and their fuel, name cards and armbands to show the roles of officials in charge, writing utensils and copying paper, cell phones for satellite communication (not prepared this time), etc.

Out of the items above, coffins, dry ice, and goods for memorial services do not have to be stocked regularly. Similar to this time, it is important to form a cooperation agreement on a prefectural level in order to get necessities from outside the disaster struck areas. If the death toll is high, hygiene control will become a bigger problem in summer.

2 Future plans

Before the disaster our school had conducted three emergency drills a year. The municipal government envisaged that the school facilities could be used as an emergency evacuation center and thus prepared a warehouse with emergency supplies at the back of the gym. However, despite all the planning, no scenario had been envisaged whereby the gym would be used as a morgue. Therefore, after our school was actually designated as a morgue, we—faculty members, city officials, and police officers on sight—felt ill-prepared and unsure of how to proceed.

Now, after the quake, a vigorous reexamination of disaster plans is being made on the national, prefectural, town, city, and village levels. It is essential that every procedure and every issue that arose when setting up, closing, and removing a morgue be included and scrutinized in the reexamination.

In dealing with the actual disaster this time, the following points need to be remembered:

- ① To preserve the dignity of the dead.
- ② To provide the bereaved and to those who are in search of their missing family members, relatives, or friends with proper and appropriate information regarding the identifying characteristics of recovered body.
- ③ To give sympathy and support to help mitigate and heal the psychological shock of losing a loved one.
- ④ To gain understanding from parents and local residents in the case of schools.

3 Concluding remarks

Last April, five pupils either entered or transferred to our school because their houses were lost. Including these new pupils, all the pupils come to school and enjoy their studies and sports in high spirits. The school gym is used for athletic activities and for meetings. We have not suffered from the fact that our gym was once used as a morgue, but many of our parents suffered a great deal, either through losing their jobs or through a decrease in their income. The school is continuing its regular educational activities while taking into account these parents' circumstances. By doing so, we—with the great help from all the school faculty members in this region—aspire to bring up strong-minded children so that they can become involved in the work of restoring and reviving Kessennuma and Miyagi.

Last but not least, let us express words of appreciation to our vice principal for his having willingly permitted us to use his following article in preparing this report.

2011 The Great East Japan Earthquake / 26 days as a morgue
Our experience and proposal
— How schools should deal with a disaster, while functioning as a morgue —
Sintaro Hara / Printed as a manuscript / 15 pages / Published in July, 2011

What Are the Best Ways To Respond When a Major Earthquake Occurs?

SATO Hitoshi, Principal

1 Pre-Disaster School Overview

Matsuiwa elementary school is located in the southeast part of Kesenuma city. The total number of students is 432 persons (as of December 2011). Our school has especially many children in its jurisdiction, where there is a history of 136 years since the opening of a school. It is composed of the 17 areas of PTA, and includes many people involved in fishery at the waterfront and office workers in the inland area. There are the Kesenuma special support school and Nishi High School in our school district. We joined as a UNESCO school, and have carried out characteristic study putting emphasis on integrated study, chiefly in the fields of social welfare, fisheries, and agriculture.

2 Immediate Post-Disaster Situation

Our school was being constructed for the final stage of earthquake-resistant work. The foundation and the framework have no remarkable damage because it was the end stage of construction. There are many dead persons and missing people in most of the areas of the seaside. The part of the hill survived, but the residences were completely destroyed except for foundations.

As for the children, a kindergarten child who was scheduled to enter our school is missing. Nine students were missing and/or lost their father or mother. Two students who transferred after the disaster became orphans.

As for our teachers, a teacher taking a holiday because of the illness in his house was missing with his parents. The houses of 10 teachers out of all teachers were partially or totally destroyed. And two teachers lost their parents.

(As for the missing teacher, he had no relatives, but we found his uncle and aunt by investigating. We supported them until his funeral in November.)

3 Immediate Post-Disaster Responses, and the School's Role

Responses on 3/11

14:46 (2:46 p.m.)

An earthquake with Miyagi as the hypocenter occurred. It was a 9.0 magnitude quake, a seismic intensity of 6 lower (Japan scale). The children took refuge under their desks instantly after they listened to the emergency broadcast and the instructions of their class teacher. Although there were some students in the school ground when school was over, they saved themselves by squatting in place.

14:50 As the broadcast equipment could not work because of a power failure, we used a hand-mike and a portable broadcast device, and evacuated children to Refuge 1 (school ground) led by their teachers. We called back children who were leaving school, and evacuated them to the school ground, too. Right in the middle of the happening, we heard the warning of a tsunami using the disaster-prevention public information radio.

15:30 After refuge confirmation, we couldn't get information about the school zone, so teachers were divided and sent to confirm the condition. As there was not yet information of the cancellation of the tsunami, we thought it dangerous to deliver children to their parents. But some parents took back their children firmly.

16:00 It began to snow and the cold became severe. We thought that waiting in the school ground was impossible, and began to deliver children to their parents. Then we collated children with a list and confirmed the delivery directly. In the end, we were unable to deliver 10 students.

17:00 We constructed a refuge on the 1st floor of our school. (We used a temporary entrance as the refuge.)

About 300 victims of the neighborhood gathered to our school. We showed the basic thought that we would

comply with anybody gathering in this place, although the nearby public hall was used as a refuge. In the nurse's office, we took approximately 20 people with physical conditions such as bone fracture, high blood pressure, diabetes. And we let them lay on the tatami mats and on the floor that led from the beds to the classrooms. We lent our clothes and tried to keep sufficiently warm dripping wet people because of the tsunami.

Electricity and water supply stopped. Moreover, all that requires a power supply, such as telephones and PCs, stopped. We couldn't get information yet.

We distributed school's stoves to refugees. Still it was cold, so we also distributed to all newspapers to warm their bodies.

Each teacher reported on the safety of all children. Children who were not returned to parents stayed at the school for delivery the next day.

City residents spent the night without electricity or water supply and food, with 24 teachers and children and about 300 refugees in a situation that nobody had ever experienced.

The day of 3/12, Saturday

- 8:00 ○ We held a staff meeting together with construction workers.
○ We directed that notices of the school closing be placed on the public hall and the disaster protection center, and in districts 2 and 3 of Atozawa.
- 9:30 ■ 2,500 rice balls were cooked and prepared as emergency food by teachers.
☆ This was work performed in our common kitchen, as we were placed in charge of making rice balls for all city citizens.
○ Our staff provided responses to persons who came to the school to confirm the safety of others.
■ A nurse and doctor came to school in the afternoon. A few days later, one of them left there and went back by the end of March.
○ They distributed disinfectant to all classrooms.
○ A teacher in charge of health education cared for all victims in the school, and measured blood pressure and body temperature. It takes 2 hours to make the rounds. They go around 2, 3 times per day (performed every day until the end of April).
○ The taught victims to move their fingers and feet everyday, and drink water to prevent so-called (airplane) "economy-class" syndrome.
■ A water truck came to the school.
- 14:00 ○ We used outside toilets since the first day. When we cleaned the toilets, we used water from the pool.
- 17:00 ■ 1,500 rice balls as emergency food were cooked and prepared by teachers.
○ We held a staff meeting together with construction workers.
○ A total of 24 teachers stayed at the school to respond to victims.

The day of 3/13, Sunday

- 8:00 ○ We held a staff meeting together with construction workers.
- 9:30 ■ 2,600 rice balls were cooked and prepared as emergency food by teachers.
☆ We finished delivering all students safely to their parents.
○ A refugee with diabetes suffered from hypoglycemia; his blood pressure dropped suddenly, and he was only semi-conscious. So, we gave him juice and sugar cubes, and after this, he recovered his sprits.
○ We distributed cotton masks to persons who had caught a cold.
○ Our staff provided responses to persons who came to the school to confirm the safety of others.
☆ The teacher in charge of health education at Motoyoshi-hibiki high school offered masks and hot-water bottles and medical supplies for our nurse's office.
☆ JUSCO (a department store), neighborhood people, and Studio35 (a photography studio) offered powdered milk, hygienic goods, and medical supplies.
- 14:00 ■ 1,600 rice balls were cooked and prepared as emergency food by teachers.
- 17:00 ○ We held a staff meeting together with construction workers.
☆ We turned on lights using a generator in cooperation with construction workers.
○ Altogether, 21 teachers stayed school to take care of victims.

The day of 3/14, Monday

- 8:00 ○ We held a staff meeting.
- 9:00 ■ 2,700 rice balls were cooked and prepared as emergency food by teachers.
○ Although there was water on the school ground, we posted a notice that this water isn't suitable for drinking because it was water left over.
○ We conduct a safety confirmation of absentees and persons who left early on the day of 3/11.

- Teachers made rice balls and took care of the arrangements for rice balls.
- Teachers carried out a safety confirmation.
- A schizophrenic person came to our school and we took him to the nurse's room. It was no use holding him because he ran amuck. Finally, the doctor in Mitsumine hospital took him there after arrangements with his brother.
- We established duties, including cleaning toilets and emptying the trash, etc. All people, including victims, conducted these jobs in turn.
- 14:00 1,500 rice balls were cooked and prepared as emergency food by teachers.
- 15:30 We held a staff meeting.
- Altogether, 11 teachers stayed school and corresponded victims.

The day of 3/15, Tuesday

- 8:00 We performed the arrangements.
- 9:30 2,100 rice balls were cooked and prepared as emergency food by teachers.
- Teachers carried out a safety confirmation.
- 10:30 Distribution of foods: rice balls, strawberries, kumquats.
- 11:00 Helping with water supplies in the kitchen.
- We finished the safety confirmation of absentees and of persons who left early on 3/11.
- We distributed toothbrushes and advised gargling, hand-washing, wearing masks, and so on.
- The teacher of health education and the officer in Kesenuma support school offered 10 sets of futon bedding. We gave these to persons in poor physical condition and to older persons.
- 14:00 1,500 rice balls were cooked and prepared as emergency food by teachers.
- 15:15 We held a staff meeting.
- In the evening, the lights were on.
- Altogether, 12 teachers stayed at school and responded to victims.

The day of 3/16, Wednesday

- 8:00 We held a staff meeting.
- 9:00 The start of conferences with the representatives of each room.
(We ask about 2 people in each room to make rice balls.)
- 9:30 2,000 rice balls were cooked and prepared as emergency food by teachers.
We began to use the temporary toilets of the construction office.
- We distributed disinfectants and masks.
- Teachers made a safety confirmation.
- We distributed sanitary goods such as gargling medicine, tissues, hokkairo (body warmers), toothbrushes, etc., and told people to monitor their health.
- 10:30 Distribution of foods: rice balls, oranges, miso soup.
- 14:00 1,800 rice balls were cooked and prepared as emergency food by teachers.
- 15:15 We held a staff meeting.
- Altogether, eight (8) teachers stayed at school and responded to victims.

The day of 3/17, Thursday

- 8:00 We held a staff meeting.
- 9:00 Conference of representatives. We made an independent organization. There were 2,500 rice balls cooked and prepared as emergency food by teachers.
- 9:30 Super morning (TV program, live broadcast)
- The teacher of health education made a notice about "physical health" and "mental health," and distributed copies to each room.
- 13:00 We pasted notices about the reopening of the school in each district.
- 14:00 1,900 rice balls were cooked and prepared as emergency food by teachers.
- We continued making rice balls until 4/11, twice everyday.
- 15:15 We held a staff meeting.
- Altogether, 10 teachers stayed at school and responded to victims.

The day of 3/18, Friday

- 8:00 We held a staff meeting.
- 11:00 We moved desks and chairs of 1-1 and 1-2 classrooms.
- 15:15 We performed the arrangements.

- I directed the assistant principal about role of teachers, and divided teachers into groups taking care of oil supplies, water supplies, goods supplies, and safety confirmation.
- ☆ Teacher's car was used as the emergency car.
- Altogether, 12 teachers stayed at school and responded to victims.

The day of 3/19, Saturday

- Installed 5 emergency toilets.
- Altogether, 13 teachers stayed at school and responded to victims.

The day of 3/20, Sunday

- Our water usage was limited to only water supplies and the kitchen.
- A parking area was made in the school ground.
- Altogether, 13 teachers stayed at school and responded to victims.

The day of 3/21, Monday

- ☆ The victims began to clean, and clean up plates.
- Altogether, 10 teachers stayed at school and responded to victims.

4 Engagements Aimed at School Reopening

The day of 3/17, teachers separated and put up posters to tell of the reopening of our school.

The day of 3/22, first day of going to school, 392 out of 433 students came.

The day of 3/23, second day of going school, 386 out of 433 students came.

The day of 3/24, completion ceremony and graduation ceremony.

※ We couldn't use the first floor because about 100 victims were in all classrooms. And we used the multi-purpose classroom to conduct the separate grade ceremonies, because there were 4 dangerous points in the framework of the gymnasium. The day of 4/15, a school day. Teachers stood in the School Zone and conducted safety guidance. All members of my school welcomed the children at the entrance.

※ The reopening of the class was carried out on more two floors. Many equipment including desks and chairs and the indications were decided to move by March 24. The day is the completion ceremony and graduation ceremony. And we convinced children that they should share their lives with many victims for a long time.



5 School and Local Community Cooperation

After the disaster, not only the neighborhood but also many people supported us in various ways. The PTA chair came to school school to guide and care for victims, although he lost his job. As seven out of 17 districts were utterly destroyed, the school and the district were unable to cooperate in the present situation. Our school as a shelter had no systematic connection with the district. Our school played a major role as the shelter of the district together with the public hall. We ran this shelter with the cooperation of the neighborhood.

6 Issues and Prospects

We are unclear if the school is the base of the area of protection against disasters, although our school played an important role. It's a big problem.

The major role of the school is securing the safety of children at the time of disaster, of course, but the facilities themselves are the base of protection against disasters. At the time of a disaster, if the school must play a role of both “school” and “shelter” at the same time, it is impossible considering the number of persons we have. The school is not only the shelter of a day-care center but also the shelter of neighboring victims. Who acts as the leaders and how, if many different people take refuge in the shelter? It is clear that we can't control people of the shelter if there is no common understanding among all citizens. If the school serves as a shelter, how should we secure the safety of children? In the end, we must do the utmost actions that are thought of on the spot and under current conditions, but we should do actions that are thought of in advance, and that all citizens already understand. Fortunately, there was no harm done to our students from this disaster. However, if it happened at the time of going home, the teachers must make the safety of children their top priority, rather than implementing the activities of a shelter. In order for our school to serve as a hub for local disaster-prevention and response, we cannot make decisions on our own—we must have a system in place that is understood by many organizations and all of our citizens. We thus still have many issues to resolve.



Moving Towards Disaster Preparedness Into the Future

ENDO Kiyoshi, Principal

1 Pre-Disaster School Overview

1 Community overview

Our school districts lie southwest of Kesennuma city. Different from the urban area and the coastal area which developed by fishing, commerce and sightseeing, it is a hometown which has very beautiful scenery in all seasons. There are “Tokusenjyou”-the own cloth for azalea where is known as the best in Japan, “The people’s forest”-the relaxation spot, and “Hata temple”-which has long history near our school district, and many people love these places. Our school district has ha about 2 ha “School forest,” which is placed under the control of the PTA.

The Mizunashi district is divided into five administrative districts: Kanetori, Hata, Mizunashi, Maeda, and Oishikura. Our school district has few cultivated area of fields, and there are a lot of families where three generations live together. Our families are engaged in commerce, fishery, and construction. And the number of commuters for city areas just goes on increasing. Maintenance of “hometown roads between fields” and the foundation of a central driving school in Kanetori district make traffic heavy.

In the districts, there are many cultural properties which are maintained by long term culture; for example, Hata traditional theology and Christian historical spot, and cedar trees “Taro miser-Jiro miser” over eight hundred years old in Hata temple. Photography there, and the Takamaeda dry kiln and rice growing farmhouse give their natural advantages for education by schools, and they improve our school’s capabilities for lifelong education.

2 School overview

Our school is a small-scale school. There are 37 students (as of May 1, 2012), five normal classes (one of which is a compound class), one special support class, and 12 teachers.

3 Our school’s unique education

- ① Through experience activities (theology study, ceramic art, rice growing, history and nature in districts) which use regional talented people, students can learn environment, culture, and history in the district; we thus make efforts to bring up their hearts to love their hometown.
- ② We promote flower-bed and other activities that integrate different grades, and give each students certain tasks and responsibilities, thereby increasing their own feelings of usefulness. Through intergrade communication, students understand partner’s states, also make efforts to raise hearts and minds that are considerate and thankful to others.

2 Immediate Post-Disaster Situation

1 Immediate post-disaster situation

- ① When the earthquake happened, we had class, so the vice-principal told students on the emergency broadcast hide under the table as in a fire drill. After the earthquake was settled, we took refuge in the school ground.
- ② The vice-principal and class teachers went to confirm the safety of students because 1st and 2nd grade students had already left school. They made sure that all students were at home.
- ③ Because of the cold and fears of the strong earthquake, some students were crying. In order to protect students from the cold, teachers’ cars were let into the ground, and students were allowed into the cars.



Broken roof tiles

- ④ Some parents came for their children, but we told them to come to the school again at about 4:30, because strong aftershocks were continuing. So at that time we handed over students to parents.
- ⑤ There was no way to get information about the disaster because electricity, water service, phones and PCs were all discontinued. So I let school employees go home so as to let them to grasp the situation of their families and homes.

2 The situation of disaster

- ① As for the damage of our school, there were many broken roofing tiles. And in the passage in the west part of school building, some spots collapsed, and some spots had cracked. There was no damage inside of school building especially.
- ② We could not ascertain the safety of some students' parents, so four days after the disaster, I went on foot to confirm with the vice-principal, and we confirmed the safety of all members. There was no major damage concerning our students and region especially.
- ③ As to school employees, we worried about those teachers who hardly could make contact, but after 11 days from the disaster, we could make phone calls, so we could confirm the safety of all of them. Concerning about the disaster situations of school employees, there were some school employees who lost their homes and apartments because of the tsunami and fire, and others could not find their families.



Roof tiles dropped

3 Immediate Post-Disaster Responses, and the School's Role

In the evening on the very day of the disaster, the city staff came our school and told that the Self-Defense Force would use the gym for accommodations. A few refugees came to our school, but we told them to go to Mizunashi communication center, which became a shelter.

About 2 o'clock the next morning, the Self-Defense Force came from Yamagata, and they parked their cars in the vacant land at Mizunashi communication center. After that, the Self-Defense Force came in, so the gym was used for lodging.

We led the Self-Defense Force to our school pool and the homes which could give them water, and we also gave



Play at tug-of-war with the member of Self-Defense forces

them a map of Kesenuma city, for guidance on the roads. The Self-Defense Force that came from Yamagata was stationed only 4 days, but after that in April, Self-Defense Forces from Oita were stationed in the gym. We had them participate in our sports festival, and listen their musical band, and we had them play with students during rest time. So students could try to communicate with them.



Music concert was held by Self-Defense forces

4 Engagements Aimed at School Reopening

1 Coping from March 12 to 31st

- ① On March 12, teachers who were at school discussed, and decided to hold a teachers conference in the next day. We split into groups and contacted teachers to tell them that.
- ② On March 13, six teachers gathered and discussed their duties in the future and resumption of the school. We decided as follows.
 - We would make a school temporary closing in the present. Considering about teachers who were running short of gas and who lost houses by the fire or the water, we let teachers who can't come to school stay home.
 - We decided to the schedule about a graduation ceremony, a completion ceremony, and a farewell party.
 - To let other teachers know the decision in several parties.
 - To confirm the safety of the teachers whom we couldn't get in touch with.
- ③ On March 14, we went to the city board of education and reported the damage about school.
- ④ On March 16, we went to Matsuiwa junior high school and Matsuiwa elementary school and discussed educational activities in the future, for example, a graduation ceremony and transfer of duties. We also reconfirmed the safety of those teachers whom we couldn't get in touch with, and dividing the work, we told student's homes the plan in the future. We posted the school plan in the future through the board in each district by way of noticing.
- ⑤ On March 23, all teachers and students came to school. There were the rehearsal of graduation ceremony and the preparation for graduation ceremony and completion ceremony.
- ⑥ On March 24, we held the graduation ceremony and completion ceremony. All teachers and students came to school. Parents of graduates came to school. On this day, the water service and electricity service were restored.
- ⑦ On March 28, we held the farewell party for teachers.

2 From April 1st to the opening ceremony

- ① On April 1st, teachers all set off at once, and all new teachers also set off. We held teacher conference three times by the time of the ceremony for school reopening. In the conferences, we reconsidered and made the plans of education, and made the annual plan of teaching. We proceeded with preparations.
- ② On April 13, we were on patrol to confirm the safety of the school zone. The Self-Defense Forces from Oita was stationed.
- ③ On April 14, students came to school. We held the ceremony for new teachers. We handed students textbooks and gave all grade students the supplementary lessons. The new six grades students also took lessons on April 15, 18, and 19.
- ④ On April 21, we held the opening ceremony and the entrance ceremony for the 2011 school year.

5 School and Local Community Cooperation

Mizunashi community center became the place of refuge. The person put in charge as manager in this community came to our school almost every day and gave us information about the refugees and meals. We gave them some necessary things which were prepared for emergency, a potable gas cooker, powdered milk, and blankets. We also cooperated in digging toilets on the premises.

As our school water service wasn't working yet, we got water from local community people. In our school, there were many broken roofing tiles, so we asked a local roofer to make immediate repairs in order not to have the tiles fall and to prevent leaks.

6 Issues and Prospects

- ① Through the experience of this disaster, it is necessary to reconsider our school education for protection against disaster, and try to plan and carry out safety drills based on various scenarios. And even though our school is located in the mountains, there can be a tsunami at any moment, so we must guide students about dealing with tsunami. Furthermore, about the teacher's actions in such a huge earthquake, we must make a manual for school days and holidays, and try to make a common understanding among teachers.
- ② As to the cooperation with the local community, it is necessary to discuss dealing with a case such as when an earthquake happens, including about temporary housing, and make some manuals. Especially with the temporary housing in the school grounds, we need to consider doing united training against a fire and so on.

Aiming at the Revival of School-Based Education

HASHIMOTO Shigemi, Principal

1 Pre-Disaster School Overview

The Shinjo Elementary School district is located in the western hills of Kesennuma City. Before, this was a suburban agricultural area, but these days it has become a more populated area. In fact, the eastern part of our school district is now a major residential development in the city's Higashi-Shinjo district. More people means more traffic on National Highway 45, a potential danger for our schoolchildren.

As for the occupations of students' parents, the ratio of people engaged in agriculture is lower, while the ratio of those working in offices has become higher in contrast. Families with both parents working are increasing as well.

People have positive interest in and expectations regarding school education. They willingly support school events and volunteer work like environmental maintenance. Especially, the "hometown festival" called "Furusato-Matsuri," which reached 36 times in 2011 and is sponsored mainly by the PTA, has been magnificently involving people in the community every year.

The number of registered students (as of March 1, 2011)

Registered	1 st grade	2 nd grade	3 rd grade	4 th grade	5 th grade	6 th grade	Total	Teachers/Staff
Number of people	38	35	28	26	22	42	191	17

2 Immediate Post-Disaster Situation

1 Children

- At the time when the earthquake happened, students from 3rd grade to 6th grade were studying in each classroom, and 1st and 2nd grade students were just about to go back home. When they felt the big shaking, students immediately went under the desks to protect themselves, and waited there until the shaking stopped. When it did stop, as there was a risk that the schoolhouse would collapse, all students and teachers got out of the school building by following each teacher's instructions. They took refuge on the playground, which is the first shelter in this district. Though students were nervous with the situation they had just encountered, they were able to take appropriate actions for an emergency. Finally, within 10 minutes from the refuge, we could know that all students who came school on this day were safe. After reaching the refuge, aftershocks still continued, and these aftershocks made some children to start crying. However, they recovered their composure gradually by the time their parents picked them up.
- By that evening, we were able to confirm the safety of three more students, a first-grader who was absent on that day, and two second-graders who had returned home earlier than other students.

2 Faculty members

- Class teachers immediately led and brought students to the playground, which was the first evacuation area just after the earthquake stopped, though we couldn't direct all people at once to the evacuation area because of a power failure. After leading children to the playground, teachers did many things thoroughly, such as making sure whether our students were safe, taking care of them, passing children to their parents safely, checking damaged parts of the schoolhouse, and preparing and clearing a shelter and a mortuary.
- A vice-principal and a teacher in charge of one of the first-year classes had the day off that day, but after the earthquake, they came to school immediately to get back to work.
- One office staffer was on a business trip to the Minami-Sanriku joint government office building, but the meeting was cancelled because of the earthquake. The staff could come back safely via Yamate, which is as known as Iriya in Minami-Sanriku city.

3 School Institutions and Facilities

- Electricity and water stopped and phones and computers were also unavailable. Therefore, we were unable to contact the Board of Education or parents' mobile phones, including email. Even though we changed specific phones to emergency lines, we still couldn't make contact with anyone.

4 Damage conditions (March 2011)

- Students: All safe
- Parents: One (1) died during work. Two houses were partially destroyed by the disaster (one of those is outside of the school district).
- Teachers: All safe, but four houses were completely destroyed by the disaster.
- School Buildings: Walls on the south-side and the edge of the roof of the gym collapsed, a clock in the staff room fell down, and inside walls of the school house got many cracks.
- Community: No damages from the disaster.

3 Immediate Post-Disaster Responses, and the School's Role

1 Responses on behalf of students and parents

- Some parents started to come to school to pick up their children about 10 minutes after we had all moved to the playground. Also, because our school district is on a hill and some parents and vice-principal said that the district was safe, we decided to make students go back home with their parents. After checking some points, we started to pass students to their parents around 3:30 p.m. Especially, we securely ensured that school staff check and record the persons who came to pick students up (we decided to pass children only to their families), and the times they came. Students left their shoes and their school items in their classrooms because there were still aftershocks, and we couldn't get in the school. After a while, the temperature got lower, so the staff brought out some winter clothes from schoolhouse for students. However, because it started snowing, the staff had students who were still at the school get into their cars to get warm until their parents picked them up. We made students move to the gym with other people and our staff after we opened our gym for a shelter. After the residents had moved to the Shingetsu junior high school gym, we brought students to our staff room with teachers. Around 9:30 p.m., we completed the passing of students to their parents.
- Around 5 p.m., we could know all students, including those who were not in the school when the disaster happened, were safe.

2 Responses to Evacuees

- Around 4:30 p.m., other people took refuge to our playground by their cars one after another, and they asked us to open the gym for a rest. Therefore, we checked whether our gym and schoolhouse were safe, and the gym was opened around 5 p.m. Altogether, 31 people came at that time. There were five stoves in the gym, so people got warm by those, although other emergency items were not stored. Also, to get some lights, we brought some candles from the science room. Some blankets from the nurse's office were used for children. However, there were still some aftershocks, so we used stoves and candles very carefully.
- Around 8:25 p.m., city staffers and staff from the fire station came to the school and they told us that our school gym would be used as an emergency mortuary from tomorrow. Therefore, we had to move people taking refuge in our school gym to Shingetsu junior high school immediately. Other staff in the gym cleaned it up and locked, then moved to the staff room with students.
- Because some people put their cars in the playground and our security equipment was all unusable, eight members from our school stayed at the school to monitor the situation.

3 Preparing for the emergency mortuary

- On Saturday, March 12, police officers and staff from Kesenuma city came to our school around 7:30 a.m. Then our gym was used as an emergency mortuary. Our staff cooperated with them to arrange the place for the mortuary. As a waiting room for bereaved families, we opened our meeting room as well.
- Staff from the city stayed in our staff room until March 14, and police officers stayed in their cars. Even after March 14, our gym, meeting rooms and playground were used everyday until Sunday, April 10, when the urgent mortuary was closed. During this period, our staff helped even on our days off. Also, our staff stayed in the school during the

period when we couldn't use security equipment because of the blackout.

4 About facilities

- After we opened the urgent mortuary, many people came to our school. In the daytime, some people came to identify dead bodies, while other support teams came from wider areas, namely the police of other prefectures, and the Self-Defense Forces. In the night, Self-Defense Forces' cars and water trucks were parked in our playground, and the playground was also used as a site for large vehicles to turn around in. This lasted until April 10, the day when we closed the mortuary.
- While our gym and meeting room were open for the temporary mortuary, there were many people using toilets. Therefore, we had to clean up those toilets several times a day. Especially, we had to ask people in the community to bring some water to the school everyday until March 22, which is the day the water supply was restored.

5 Others

- Some staff helped to distribute emergency food to refugees at Shingetsu junior high school on March 14 and 15.
- Look around the students escaped to the Nitsuki JH gymnasium.

4 Engagements Aimed at School Reopening

It was relatively easy for us to do the things necessary for resuming our school curriculum. This was because all of our students and staff could get to the evacuation area safely, and the damages of school facilities, such as the water shutdown and power blackout, were not so major. We teachers and staff cooperated to achieve two goals we set for ourselves. First, to accomplish the planned school curriculum as previously scheduled to help students to get back to a normal school life as soon as possible. Another goal was to take care of students' mental health. Especially, we paid close attention to transfer students.

During March, we did home visits and office work for end of the year only in the daytime. We drove teachers whose cars were unavailable from and to school in this period. Along this situation, we took turns to deliver emergency food at Shingetsu Junior High, to clean up other schools, and to maintain the waiting room for the mortuary.

Also, we held five meetings with four schools located within Shingetsu ward to exchange information and to adjust schedules from just after the disaster until the opening of the school term. These close meetings encouraged us to go forward.

<Toward the end of the 2011 school year>

- March 16 ● *1st Meeting with school principals in Shingetsu ward. —Considered the schedule and how to investigate and monitor students and their families' conditions, as well as a farewell ceremony for teachers, a completion ceremony, and graduation.
- March 17 ● Meeting for considering our future school management according to the 1st Meeting.
● Wrote letters about the ceremony for end of school term and graduation to each family.
● Visited all families in 2 days (17th and 18th March), and confirmed their conditions and their current residence, and delivered the letters we had made.
● Emergency phone line became available.
- March 22 ● 2nd Meeting with school principals. —Exchanged information concerning each school's methods of school management toward the end of school year.
- March 23 ● Electricity became available at 11:30 a.m.
● Guarding by a security company resumed after maintenance by the Tohoku electric security maintenance association.
● Water was available along with electricity. Finally we could finish cleaning the hall and preparing for graduation.
● A septic tank maintenance by cleaning business co-op.
- March 24 ● Completion ceremony from 8:15 a.m. in the library. one student was absent.
● Graduation ceremony from 11:00 a.m. in the music room. All 42 graduate students and 22 students from 5th grade attended.
- March 31 ● Inspected the emergency system. Almost all of inspections were done at this time.

<Toward the beginning of the 2012 school year>

- March 29 ● 3rd Meeting with school principals Adjustment of school event schedules and exchange of information toward the beginning of the 2012 school year.



March 24, graduation ceremony in the music room. Though the place was small, students were glad to have this occasion with their families and school staff.

- April 1
 - Transfer teachers came to our school.
 - Made all our students aware of the dates of school days.
 - School meeting for supporting 15 transfer students who were victims of the disaster.
- April 4
 - Meeting of school principals from public schools. Confirmation of the date of the opening ceremony, April 21, and the entrance ceremony, also April 21.
- April 5
 - 4th Meeting with school principals. Discussions about the date when schools start, the entrance ceremony, and the opening ceremony.
 - Made phone calls to all families and told the date when the school would start.
- April 6
 - Made phone calls to all new students' parents to make sure they would enter our school, to know their conditions and to communicate important information for entering the school.
- April 7
 - Investigation of transfer students' conditions, and ascertaining whether they have textbooks and other necessary school items.

A big earthquake occurred at 23:40 (11:40 p.m.) and electricity stopped. The school staff came to school and checked whether the schoolhouse was safe. They found some damages, such as strange sounds from emergency system, and that some photo frames had fallen down. They stayed in the school that night. However, because electricity was shut down, they couldn't clean up those things.

- April 8
 - Fixed the things which were damaged last night in the early morning, and after checking school zone, we decided to have students come to school as scheduled.
 - School day (156 students out of 160 from 2nd to 6th grade attended).
 - Ceremony for introducing transfer teachers held in the library.
 - Letters about the opening ceremony and entrance ceremony were delivered.
- April 10
 - Removed summary mortuary. The work was complete around 16:30.
 - Cleaned the gym and waxed the floor from April 11th to 15th.
- April 12
 - 5th meeting with school principals – Exchanged information.
 - School staff checked and fixed school equipment.
- April 13
 - School staff meeting (preparation for next school term).
- April 18
 - Preparing school items for transfer students.
 - Preparation for the entrance ceremony.
- April 19
 - School staff meeting. ● Preparation for the entrance ceremony ● Safety check in our school zone
- April 20
 - Gym purification ceremony at Hokyoji temple. ● Safety check in our school zone
- April 21
 - Opening ceremony for 1st school term. 15 disaster victims transferred.
- April 22
 - Entrance ceremony at the gym. 35 students entered our school.



April 22, entrance ceremony at the gym: 35 new students who started their school life in the neat gym.

<Supporting transfer students and students who suffered in the disaster>

- Many students out of 15 transfer students (now there are 18 in total) suffered in the disaster and were evacuated within our school area, so both children and parents were worried about transferring and their new life in our school. In fact, many parents worried about their children's school bags, school supplies, and even sportswear and the clothes for the entrance ceremony. Therefore, we researched each student's conditions in detail, and then fixed the support system for them. We requested school materials through the Board of Education in the city and NGOs, and we asked alumni and parents to donate materials they had. Also, we made some materials that we could prepare by ourselves as well.
- We tried hard to make good conditions for transfer students with our students' and parents' understanding. Also, we did periodical counseling from May, and held counseling training for teachers and office staff.



May 22, sports day: sportswear for transfer/new students came the day before the sports day, so the entrance march could be done by everybody.

5 School and Local Community Cooperation

- We didn't have to make much communication with our community because the place around this area hardly got damaged. However, some staff went to Shingetsu junior high school to help with emergency food distribution, as we heard they had shortage of people.
- People in the community supported our school activities in year 2011 as usual, especially the Furusato festival and integrated school hours, so we could proceed with these activities as in other years. They visited our school to see

whether we were safe, and also they brought some food and water to support us.

- After our gym finished its role as a mortuary, it was purified through the kindness of the chief priest at Hokyoji Temple. Thanks to this, we could celebrate the opening of the new school term and entrance ceremony.
- In the meeting with PTA executives and the meeting with all the members, we explained the following two points: 1) it is really important for both our students and transfer students to get back to usual school life as soon as possible, 2) cooperation with the PTA and community is necessary to welcome transfer students and their families. In the end, they understood these points and supported us.



A lot of encouraging messages and support supplies sent from inside and outside of Japan.



Flowerbed of 1,000 sunflowers, which were sent from Shimodate junior high and were grown by students in 5th and 6th grade.

6 Issues and Prospects

1 Facilities, Equipment, and Stocks

- Our equipment for emergency broadcasting was unavailable because of a power failure, so we couldn't make evacuate directions by broadcasting. However, we could make sure that all our students were safe. This is because teachers and staff made correct instructions, and all people could evacuate from schoolhouse to schoolyard at the same timing. We checked the equipment later, and some sound troubles were found in some classrooms and the gym. It needs repair as soon as possible.
- We have an emergency email system for parents, but because of the blackout and unavailability of K-net (a nationwide network of seismographs), we couldn't make good use of it. Though we couldn't contact with parents at all because these systems were down, we completely finished delivering our students to their parents around 9:30 p.m. on March 11 thanks to their cooperation. During the second semester of this year, we asked parents again to join our email system, and finally we could register all families into the system. Now, email is used for whole-school, and also grade-separate, communications.
- During the stay in our school, students, staff and evacuees might have felt inconvenient because this school didn't have any stocks. In response to this situation, finally we got main important emergency stocks in the school on December.

2 Education for Disaster Prevention

- Fortunately, our Shingetsu district did not suffer major damage in this earthquake/tsunami, but there are still possibilities that various natural disasters, such as earthquakes or floods, will attack the place. Therefore, we want to proceed with disaster-preventing education for students with a stronger consciousness for danger than before. In particular, we have to reconsider whether our evacuation drills that suppose that students encounter a disaster outside of school are useful for our children in deepening their knowledge or their abilities to judge and make decisions. We will not only continue to have students acquire disaster-preventing knowledge, but also plan and perform the contents of disaster-preventing education and evacuation drill schedules with common understanding with their parents.

3 Environmental Change within the Community

- Now, the environment surrounding the district has changed greatly. This is because temporary houses, factories, stores, and hospitals, which are necessary for people, were built at a quick pace. Our district placed on hills hardly got damaged, so this place was suitable to build these things. In fact, almost all parks in our district have so many temporary houses that the space for children to play is decreasing sharply. Also, this changes brought heavy traffic and people from outside of the district, so we have to worry more carefully about traffic accident and suspicious people, which we barely had to do before. Therefore, we want to proceed with youth development not only in the school but with the entire district, making closer and stronger bonds between community, parents, and our school.



September 4, "the 36th Furusato-Matsuri festival" mainly run by the PTA. The hall was full of people and held magnificently.

Aiming at School Creation that Enables Us to Overcome Our Disaster Experiences

YAMAMOTO Masami, Principal

1 Pre-Disaster School Overview

Our school district is located approximately 10 kilometers northwest of the central part of Kesennuma City, in the northernmost portion of Miyagi Prefecture. Our school is situated in the center of what is known as the Yatsuse district, which spreads eight kilometers from south to north. The school was moved to a newly built (2006) wooden school building, a structure that is warm and bright, with its themes of wind and light. The old school building, a two-story wooden structure built in 1922 and sited at the south side of the old school, was registered with the Agency for Cultural Affairs as a Tangible Cultural Property.

While in the past, our main industries were forestry and sericulture, many of our parents currently work in the city, with both parents working. In many households, it is the grandparents who are looking after the children.

Our school has carefully preserved several of its traditional events and activities. From the 2005 school year, our entire school has been involved in the Wasedani Shishi Odori, a “Deer Dance” with a 120-year tradition in the Wasedani area of our school district. And every year, sixth graders are instructed in Tsukazawa Kagura (a Shinto theatrical dance), which they then perform at our School Festival. We also created the “Respect for the Elderly Scrapbook” (“Keiro-cho”, the 40th issue dated 2011), a collection of works by our children, distributed to persons age 77 and older living in our district, in addition to “Kodama” (“Echo”), writings by all of our students, also passed out for reading by our local community. Utilizing our local natural environment and traditional businesses, students further perform experiential activities, including biological surveys of the Yatsuse River, charcoal making, and silkworm raising.

In 2007, Tsukitate Elementary School was designated a Specially Designated Kesennuma Municipal School, enabling school-aged children anywhere in the city to attend our school. In 2009, we were registered as a UNESCO Associated School. Since then, we have been designated by the City Board of Education a “School for Performing ESD Promotional Activities on the Basis of Traditional Culture” (Note: “ESD” is “education for sustained development”).

There were 34 pupils in school year 2001, with four school-year groupings: separate first and second grades, and combined third and fourth, and fifth and sixth, grades. There were 11 school employees. There was no change in the number of pupils due to the earthquake disaster.



2 Immediate Post-Disaster Situation

At the time of the Great East Japan Earthquake, all students were still at school, before the time they were to return home. Although there was breakage due to supplies, etc., falling and other light damage, no major damage was observed within the school building. After the prolonged, strong shaking, students were gathered together, and their safety was confirmed. Preparations were made to leave the school, while students were made to wait until parents and grandparents came, when the students were individually sent home. It was 3:30 p.m. when all students had been directly passed over to their guardians.

Although all school employees within the school were safe, the electrical blackout made it impossible to fully ascertain the situation within the city. Meanwhile, the public-relations wireless had repeatedly warned of a coming

major tsunami, so workers waited within the school. Only those employees who had no fear of tsunami damage left for home at 6 p.m., while the others were made to stay overnight at the school. The vice-principal, who at the time was on paid leave, was stuck in the parking lot of Kurikoma-Kogen Station, and didn't arrive at the school until four hours later, before 7 p.m. An office employee who was at the Prefectural Government Office in Minamisanriku-machi for an explanatory meeting on transfers stayed at that site until able to evacuate inland. After staying overnight at a friend's house in Tome City, the employee reached the school at 5 p.m. the next day, after first visiting home to check the safety of his (??her) family. A part-time educational support staff who was on leave was in Sendai, and then moved to an evacuation center within Sendai City. On March 17, that person returned home to Kesenuma City, where he (??she) stayed with relatives.

There were school employees who, for several days after the disaster, were forced to live alone with their worries and anxieties; some had lost their homes in the tsunami or fires, some were unable to ascertain the safety of their families. We tried as much as possible to accommodate these individuals at the school. Always there were three to five employees who ate together, commiserated, and performed disaster-relief tasks for victims. Since it was six kilometers from the school to the city center, a major issue was securing gasoline for vehicle transportation. In the evening of March 13, we were informed that the City Board of Education had assigned each school an emergency vehicle with priority access to 10 liters of gasoline. This proved to be of great assistance in securing means of transport within and without of the school district, and enabled us to ascertain the status of our students and their families.

Local people also provided support, visiting the school just after the disaster, to provide care and ensure safety; they also contribute foodstuffs, clothing, bedding, etc.

Our school not only faced a continued lack of electricity from directly after the disaster, but also a water stoppage from the evening of the following day, March 12. Water supply was finally restored in the morning of March 27, with electricity restored around noon on the following day, March 28. Meanwhile, a water truck supplied our drinking water. For toilets, at first we used water from a pool at the old school house 500 meters away—we used buckets to remove the water, and then carried the water uphill to the new school using a wheeled cart. Because we required even more water after a portion of the school facilities was set aside to accommodate the Tokyo Fire Department, we obtained toilet-use water from the Fire Department's water-pump vehicle. Since this was a new building of only five years, all of the main systems, such as heating, were electric, and couldn't be used. Only two stove heaters that did not require electricity were used for heating. All other devices that required electricity, such as personal computers and telephones, could not be used.

3 Immediate Post-Disaster Responses, and the School's Role

Our school was never requested to serve as an evacuation site; rather, even as we performed other roles—distribution of emergency foodstuffs and other support items, presentation of information supplied from the city, and serving as a site for information exchanges among school-district residents—we also supported the operations of the evacuation site at nearby Niitsuki Junior School, chosen to serve as the site from noon on March 12. For example, we took turns in the cooking and serving of food, and participating in other activities.

From the morning of March 13, the City Board of Education designated our gymnasium and other facilities as accommodation for the Tokyo Fire Department, and we served continuously as such until the deployment was ended on April 10. At maximum, around 220 persons were involved. Crews were mixed from various stations, and mainly every three or four days were replaced after performing extremely hard work, in the cold weather, day and night without sleep or leisure. As movements were difficult, many times firefighters arrived back late at night or early in the morning. As our school was without electricity or water services, we had to explain, whenever necessary, precautions regarding the use of school facilities. Inasmuch as my own personal residence had burned to the ground, I, too, stayed at the school from the earthquake through April 9.

Water supply was cut off for around three weeks, and we were supplied from water trucks during that period. When the first water trucks arrived at the school, our employees strove to publicize the fact. However, since they had troubles spreading the information, members of the Japan Self-Defense Forces were asked to assist, and several water-supply sites were set up in the district.

4 Engagements Aimed at School Reopening

On March 13, after 2:30 p.m., we received instructions from the City Board of Education to suspend school for an unspecified time period, and to verify the post-tsunami safety of schoolchildren, their parents, and of school employees. We immediately assigned all employees specific tasks, including ascertaining the safety of roads, etc., and visit the homes of children.

At 6 p.m., three hours after the disaster occurred, we had ascertained that all of our children were safe and secure.

During our home visits, we learned that the grandmother of one of our 2011 first-graders had been carried away, in her car, by the tsunami. We were also able to gain some—although only a little—information about the state of affairs within Kesennuma City. On March 16, we had ascertained that the families of school employees were safe.

From March 14 on, every morning we held a meeting to report on events the previous day, to share information we had collected, and to determine the tasks and division of responsibilities for that day. As school Principal, since my own information was limited, the information I received from school employees and families was of enormous assistance in gaining an overall picture of the disaster to base decisions on. Also, from March 12, the principals of the four schools within the Niitsuki Junior High School District began their rounds of direct visits to each school, to share information about the situation, activities, and issues and problems at each school, as well as details of City Board of Education directives. Since at that time there were no telephone services, including mobile phone services, direct school visitations were extremely beneficial in exchanging and gaining new information about current school status, and in the making of plans towards the reopening of the schools. The principals also visited many times to the City Board of Education to consult and receive instructions. We learned that the extent of damage, etc., was different at each school (we weren't even aware of that for several days after the disaster!). We truly felt that exchange of information with nearby schools in the same situation was indispensable.

At any rate, we surely needed to gain as much information as possible to determine the situation around us: information from the radio, direct and indirect information from school employees, information from parents and the local community, etc.

School employees had to perform their daily work while worrying about so many things: the loss of homes and the separation of families while the very basic societal infrastructure had to be rebuilt, and with also the time of personnel transfers close at hand. We encouraged them, saying, "It certainly cannot get any worse," and strove to have many persons working together on the same task, changing teammates for variety. Employees were urged to make food together, eat together, to stay over at the school together—all with the idea of reducing their sense of loneliness and isolation. In these ways, we strove to foster an environment where our people would stay positive and forward-looking, taking pains to ensure that there was no decline in morale.

On March 16, we received a directive from the City Board of Education to set dates for graduation and completion ceremonies and other events for the 2011 school year, and we were also informed of the schedule for personnel transfers.

We decided to hold the graduation and completion ceremonies, without rehearsals, on Thursday, March 24. We changed the venue from the gymnasium (as Tokyo Fire Department personnel were using it for accommodations) to the Music Room. Our school employees would make the accompanying booklet themselves. We also determined to make report cards on the basis of materials up to the disaster.

On the afternoon at that day, myself, the Vice-Principle, and the Curriculum Coordinator of Schoolteachers met together to determine our future schedule, the details of our daily activities, and agenda items for holding the graduation and completion ceremonies; we three decided who would be in charge of what, and determined to proceed in a planned fashion through to the end of the school year.

Now that we had our outlook prepared for the end of the school year (March in Japan), from March 17 we were ready for the transition from assisting at the evacuation center at Niitsuki Junior High School, which we had been performing since the afternoon of the 12th, to the year-end activities at Tsukitate Elementary School. However, since there was still a limited supply of gasoline, for the time being, we would meet at Niitsuki Junior High School, and then ride to and from the school in one or two vehicles.

In the midst of this never-experienced disaster, with the virtually unbelievable sight of its destruction, when one didn't even know where to begin in settling his own situation, the best one could do was to wholeheartedly perform the work at hand: feeding evacuees, distributing materials, and so on. We did feel, however, that inasmuch as all students and their families, as well as each of our employees and their families, were safe, as well as our school facilities, we suffered less damage than other schools (in certain aspects, only relatively, of course). We were thus able to make a smooth transition toward our regular schoolwork, and we had suggestions from all of our staff in charge



regarding the things we had to do, and how to accomplish those things.

On March 17, we had made a schedule through to the end of March, and we prepared related correspondence for parents and guardians. This was done by hand, as our copiers were not working. Separating each page with four pages of carbon paper, we were able to make five copies at a time. Contents included information about the schedule through March, the Graduation and Completion ceremonies, the continuation of student studies through the period of school closure, daily life items (with emphasis on each individual performing his/her required duties), and precautions to take care regarding aftershocks, etc. In the afternoon, we divided up the correspondence by hand, and then visited our families for the second time, ascertaining that there were safe routes for students to take to school. We confirmed that our families were safe and well.

Although March 19 was a Saturday, two persons from the City Board of Education in charge of facilities came to our school, and we performed together an examination of facilities. Although we found no major damage, we did see that many screws had flown from their places, and that boards were hanging in strips from the walls in the gymnasium. We worried that these might not survive for everyday use, what with the aftershocks occurring, but we were relieved when reassured that the walls would be okay.

On the 24th, we were able to hold the Graduation and Completion ceremonies with all students, the parents and guardians of graduating students, and as our representative distinguished guest, the head of the PTA. Then on the 30th, a farewell party was held with the PTA, and parents and children were able to attend a tandem Farewell Ceremony. During the two days when students attended school, we were able to set aside sufficient time to discuss with them about their health, and their daily lives.

On April 4, a special Meeting of School and Day Care Center Principals was held. Here was shown a schedule for the 2012 school year Opening and Welcoming ceremonies, with the former slated for April 21, and the latter for April 22. In an ordinary year, by the end of March, we would be putting the finishing touches on the schedule, leaving us plenty of time for preparations in the beginning of April.

On the following day, April 5, we made our third visit to families, explaining the schedule for April, and ascertaining the status of students.

The next day, the 6th, we helped with cleaning up at schools that had been impacted by the disaster. At 11:45 p.m. on the 7th, an aftershock measuring a strong 5 on the Japanese scale struck, and we spent the whole day on the 8th, from the morning on, searching for any damage to the school, ascertaining the safety of school routes, and checking on the safety of students (we had previously determined that students would come to school on that day). We made reports on our findings. Our electricity went out, and we feared that we would again have to live with inconveniences; fortunately, the electricity was restored at that night. On the 9th, City Board of Education personnel inspected the schoolhouse and facilities for aftershock-related damage, and confirmation was made of their lack of damage.

With the departure of Tokyo Fire Department personnel on the 10th, we ended all sleepovers at the school, and returned the charge of the school back to the previous security arrangements.

Our Opening and Welcoming ceremonies were held roughly three weeks later than usual. During our initial schooldays we held no major events, giving the students time to get used to their studies and to ensure that teachers were able to spend quality time with their students. On May 2, having prepared the students to be aware of both disaster responses and crime-prevention measures, an evacuation drill was held while students were returning home from school. With the assistance of the City Board of Education, and due to the fact that our locality had not suffered direct disaster damage, we were able to provide simple school lunches on April 26, soon after school sessions began. From May 2, full school lunches were served.

On May 19, mainly for the mental-health care of one first grader who had lost her grandmother in the tsunami, a clinical psychologist performed observations, and an interview was held with the teacher-in-charge. We learned that the parents as well as the child required support, and we were advised that there would be continued careful observations made, especially as there were worries about the mental health of the child before and after the upcoming funeral.

Counseling for school employees was performed on May 25.

We are grateful to the clinical psychologist, dedicated to the mental-health care of our students, and to the counselor for our school staff, who came multiple times to our school.

5 School and Local Community Cooperation

This community is surrounded by mountains, and thus did not suffer major direct damage from the earthquake and tsunami. People evacuated to here to stay with relatives, etc.; it is said that within the Tsukitate Middle School district more than 1,000 households housed evacuees, including more than 100 households here in Tsukitate.

Although our school did not serve as an evacuation center, we did serve to the posting of disaster-related news and information from City Hall, and in the distribution of emergency foodstuffs and water supply.

Neighborhood association leaders were in charge of coordinating the distribution of support materials to persons who had evacuated to within the school district. Realizing that their efforts alone would be insufficient, these leaders

requested the assistance of the schools. Our school, too, served as a temporary distribution site for support materials, from March 18 through April 16.

One classroom next to the school entrance was used as a distribution base, and all school employees worked in shifts to receive, stack, and pass out materials. Later, some persons served in going around to evacuees to collect distribution requests, as well as in the delivery of goods, plus in making requests to Japanese Self-Defense Forces for materials.

While at first boxes were simply piled on classroom desks and tables, little by little school employees brought clothes hangers, etc., from their homes, and arranged items by size, use, and target age in ways that could easily be viewed by visiting evacuees.

Since our school facility was opened and staffed every single day, we did not receive a rush of visitors on a daily basis—on our busiest days, around 30 persons would visit. Yet visitors would tell us that they came because other sites were closed, or that, compared with other supply sites, we had a good selection of things they needed, or that we were not as busy as other sites, so there was always someone there at our school to assist them.

From March 13 through April 9, our school also served as accommodations for the Tokyo Fire Department. Local persons told us that they wanted to make o-nigiri rice balls for the firefighters, who had provided so much assistance to disaster victims. We at the school thus coordinated these efforts, determining the number of rice balls, storing them, and passing them out to the firefighters. These firefighters were grateful for the good will of the local residents and evacuees, who had added local pickled vegetables to make their rice balls special.

6 Issues and Prospects

Although we did not have direct, major damage, some parents did lose their jobs temporarily, and there were persons who lost relatives and friends in the disaster. There was a distinct change in the environment of our community, and it is not difficult to imagine the anxieties in the minds of our children, fears not easily put into words.

It is important that we provide the comfort that these children require; at the same time, we need to foster in them the character, capabilities, and attitudes that they need to overcome their difficulties.

To accomplish that, we have striven to do this school year those things we have always done. We have also vigorously provided opportunities to meet with volunteers and others who have come to provide assistance, to ensure that children know the importance of social interactions. We have undertaken other projects designed to support our activities into the future. With the support of the nationwide Green Curtain Project, our children have raised vine-growing goya vegetables (“bitter gourds”), and, with the help of volunteer groups, have planted cherry tree saplings that were graciously provided. Other exchanges with our supporters have also sprung up.

It may take many years until our region is fully restored and recovered. We need to make small, secure steps forward, and continue to ensure that our progress is steady and continuous. We believe that such progress is in fact our true “restoration and recovery.”



**Aiming at School and Local Area Revival
that is Replete with Flowers and Smiles**

KUMAGAI Masako, Principal

1 Pre-Disaster School Overview (The school was filled with flowers and students' smiles!)

Our school is in the western area, about 8 km from the center of Kesennuma City. It takes about 15 minutes to come here by car from the center of Kesennuma City. The area around our school borders on Iwate Prefecture. You can see our school as soon as you enter the city from Ichinoseki Interchange of Tohoku Highway. There are National Road 284 and the JR Kesennuma Line in the center of our school district, and also the Ogawa River and the Nijuichi River. This area is a midland, rural, intermountain region, and its every season's sceneries with its expanded rice terraces are like paradise. The industry of our city is mainly agriculture, as we grow rice for sake and plants of flowers and vegetables. However, most of our parents work at companies related to fishery processing in the city. Most students live with their parents and grandparents. In addition, most students have a proper lifestyle.



Our school has built our traditions which are full of flowers and nature as we got prizes repeatedly thanks to the cooperation of local people, ever since we won a special prize in the Miyagi Prefecture Schools Environment Greening Competition 1982. We have become a Kesennuma ESD UNESCO School, and we have actively worked thanks to our abundant nature. We have traditions of growing flowers, rice and vegetables for 30 years, and we have evolved our educational plan aimed at "Growing students who have strong and kind hearts."

In 2010, we worked towards deepening our alliances with students' homes, local people, and various institutions and facilities, all aimed at making a safe and peaceful school. We had advanced the plan by distribution of school news to all families not only for disaster preparedness, but also to foster a community for growing students.

Two days before the Great East Japan Earthquake, on March 9, 2011, an earthquake of magnitude 7.3 and a lower 5 level on the Japanese earthquake scale of seven occurred, and a tsunami warning was issued. We checked the safety of our school zone in the earthquake, and all students went home with teachers after the fifth period. At that time, we drilled again on how to evacuate in an earthquake, and we checked the safety of our school zone near the local rivers.

Kesennuma Civic Ochiai Elementary School

Address 〒 988-0844 114street Kesennuma City Zougahana

Tel-number 0226-55-2061 E-mail oti-sll@mopera.net

The number of students 17 The number of teachers 7

The foundation memorial September 1, 1947 The tree of school Hahaso

We won prizes at the National School Environment Greening Competition in 1982, 1994 and 2010.

2 Immediate Post-Disaster Situation (An earthquake of a lower 6 level on the Japanese earthquake scale of seven happened, but fortunately we didn't encounter the tsunami!)**1 Post disaster situation of school district, school and staff****March 11, 2011 Friday**

14:46 (2:46 p.m.)

An earthquake of magnitude 9.0 and a lower 6 level on the Japanese earthquake scale of seven occurred. Desks and chairs of class trembled suddenly. We couldn't keep standing. In the science classroom, experiment items and beakers fell and broke. Teachers said to students, "Go under the desks!" Some students began to cry in fear. A blackout occurred.

14:55

Teachers instructed loudly to refuge to schoolyard.

First and second grade students refuted from the classes on the 1st floor. Third to sixth grade students

- escaped from the 2nd floor.
All 20 students and 8 teachers, total 28 people could take refuge safely.
One staff had gone to Minami-sanriku educational office on a business trip, and a city staffer was on the way home.
- 15:00 The big tsunami warning was issued.
- 15:15 A portion of parents came to take their children, but we asked them to wait for more comprehensive information.
- 16:00 We finished returning all students to their parents. The schoolyard was covered with snow.
- 16:05 We checked the damage of outside and inside of school at an emergency conference.
- A school gate made of stones was broken.
 - A hole 1 m across and 80 cm deep appeared on the schoolyard caused by liquefaction.
 - Ground subsidence of about 70 cm happened.
 - Falling of lockers, goods, and breakage of glass were major damages.
 - Falling water by a part of fracture of the hot water machine on the 2nd floor.
 - Documents and PCs were destroyed by falling water.
 - The ceiling of the music classroom fell.
- 17:00 We were made to go back home to check the safety of our families. We couldn't check the safety of 3 staffers.

March 12, 2011 Saturday

- 9:00 A blackout occurred. We couldn't use our telephone. We could keep water because of reservoir. The staffroom was flooded by falling water.
Five teacher and staff went to work. We checked on the safety of students. All 20 students and all their families were safe, and damages of their houses were so little. Provisions of gasoline for cars were so difficult. Procurement of foods were also difficult because of closed food shops.
- 15:00 We opened the place for refuge. We instructed staff to arrange and coordinate emergency goods.
- 19:30 No refugees came.

March 13, 2011 Sunday

- 9:00 We opened the place for refuge. Refugees didn't come. We instructed staff to clean up our school. Residents who live near our school helped us.
- 13:00 Municipal staff came to our school. They checked on the safety of students and damages of our school.
- 19:00 Refugees didn't come. The staff whose safety had not been ascertained, and one family member of staff who missing, were found. Eight of eleven staffers suffered the loss or damage of their homes.

3 Immediate Post-Disaster Responses, and the School's Role (Our school was used as a stronghold for our community in the disaster!)

March 14, 2011 Monday

- 9:00 We opened the place for refuge. Refugees didn't come.
We instructed staff to clean up our school. Residents who live near our school helped us.
- 14:10 The 4th squadron of the 41st Infantry of Ground Self-Defence Force came to our school.
We opened our gym for them to stay. (They moved to a different place on Tuesday.)
- 18:30 We instructed on how to attend night duty. Refugees didn't come.

March 17, 2011 Thursday

Support materials were distributed (foods, commodities). After that, we found that people who lived in damaged areas came here for such materials.
We composed letters on how to act, and distributed them to students' parents.
Because of the blackout, we made the letters while using a private generator.
A fire company came to our school. They checked our situation, and inspected for leaks in the gas ductwork, and so on.

March 18, 2011 Friday

We checked on the safety of all 11 teachers and staff. One week had passed since the earthquake.
We reported the situation to the City Board of Education.
The Tohoku Electricity Safety Board came to our school. They checked our school.
They planed to recheck the falling water on the 1st floor, because of anxiety of leakage.

March 24, 2011 Thursday

We carried out the ceremony of graduation and completion.

All 20 students came to school. The parents of graduates and the residents who live near our school came to our school.

We instructed staff to distribute support materials (foods, clothes, commodities, and so on) which were delivered to our school to refugees. After that, we confirmed in the morning and afternoon that we had received materials and that refugees had come to our school.

April 8, 2011 Friday

We attended school that day. Altogether, 16 of a total 17 students came to school. One of them was absent because of concern about her/his house.

All students were active. The parents of three students lost their jobs because their companies had been swept away in the tsunami.

We instructed staff to secure the safety of the school zone and make other arrangements aimed at resumption of our school.

We banned students from entering the music class because of falling ceiling.

We instructed staff how to care for students' feelings.

Support materials (items required for studying) were delivered. They were kept in the gym. There were many applications for them by telephone.

April 21, 2011 Thursday

We proceeded with the 1st semester starting class ceremony for 2011.

All 17 students came to school. The PTA president attended. An entrance ceremony wasn't held, because there were no new students.

April 25, 2011 Monday

Easy school lunches (bread, milk and flan) were started.

April 26, 2011 Tuesday

We distribute the support materials (studying goods) to all of our city's schools. Mr. Jun Asanuma, an associate professor of Tohoku-University, and postgraduate volunteers called on us to help us and assisted with the arrangement of support materials.

May 2, 2011 Monday

Complete school lunches (breads, curry, salad and milk) were started. After that, we momentarily ate breads mainly, and we were able to eat rice at school lunchtime from August 29, 2011.

May 7, 2011 Saturday

We carried the support materials (studying goods) out from the gym. We carried them to the old schoolhouse of Tsukidate elementary school.

We could regularly use the gym.

4 Engagements Aimed at School Reopening (We aimed to do ordinary educational activities!)

1 From March 12, 2011 to April 7

- ① We reconstructed our schoolyard damaged by holes and water to maintain the safety of facilities. It was so difficult to repair documents and PCs. We banned our students from entering the music class which we plan to reconstruct in the future, and we used the studying-life room as music class. We cleaned up everyday aimed at restarting our school.
- ② We noted that the amount of traffic on National Highway Route 284 was increasing rapidly, so it was very dangerous to cross the road. We reported it and checked how to instruct students about it.
- ③ We made and distributed letters about the future of our school to students' parents. We prepared for the extra day going to school.
- ④ We exchanged information at junior high school district principal conference, and we discussed the background for academic courses.
- ⑤ We volunteered to clean up mud gathered in an elementary schoolhouse on the coast.

2 From April 8, 2011 to April 20

- ① April 8 was an extra day for going to school, and all students came here so actively.
- ② We acted positively, in addition, we cared for the feelings of students. We reported to students the plans to restart

our school.

- ③ We visited students' houses during the extra vacation. We discussed the need for parental help in entering school, helping entering school with their parents.
- ④ We decided our courses and the administration of drills for earthquake and tsunami in May as a result of the Great East Japan Earthquake.
- ⑤ We decided the day of the 1st semester ending class ceremony and the 2nd semester starting class ceremony would be July 26, 2011, and 22 August for ensuring the time of lessons.

3 From April 21, 2011 to July 31

- ① We proceeded with the starting class ceremony at April 21, and all students came here and were active.
- ② We discussed means of saving our own lives and the quick means for escaping a tsunami.
- ③ We cared for the feelings of students and teachers. A counselor of clinical psychology came to our school to do counseling, so we became aware of the importance of living with dreams and hopes, and of never giving up.
- ④ It was possible to use our gym, because the place for keeping support materials was moved. We held a field day.
- ⑤ The amount of radiation of city schools was measured. The measurements were recorded.
- ⑥ We sent letters of gratitude for helping to all areas of Japan and all over the world.
- ⑦ The atmosphere of staff's creature comforts advanced to a higher level because of the move from temporary refuges to temporary housing.

4 From August 1, 2011 to December 31

- ① We sent letters to thank for many helping, including for the cello performance of the Gunma Civic Orchestra, the gift of apples with encouraging messages from Hirosaki Municipal Momosawa elementary school, and so on.
- ② All students could achieve the 970 books read goal for reading in school due to activities that inspired the reading of books, and the contributions of many books.
- ③ We executed normal educational activities; in addition, we taught and studied many things which we could learn from this disaster.

5 School and Local Community Cooperation(Especially at a time like now!)

1 The Anti-disaster Stronghold of our community

Our school and the people who lived around our school had cooperated at every division for children's education from pre-disaster. When we incurred damage by this disaster, the people who live around our school came here and cheered us. They were glad to hear that we and the students were safe. Staff visited students' houses and checked the situation of student's houses and our community's damage. The people who lived around our school and graduates were shocked about the damages to our facilities, and gave so much assistance in cleaning up and so on.

After this disaster, we exchanged information through distribution of supports goods as the stronghold of our community. In addition, so many people cheered and helped us more than before.

2 We had to do these things, because the situation wasn't usual

We were cheered on so strongly, "Principal, we should spend time normally, because the situation isn't usual." We executed traditional "Making flower, rice and vegetable" with our community. This event was successful, and the harvest festival where students invited their parents and people who lived around our school was so great. We thought this event could deepen the bonds between the school and the community. This festival was incidentally the 30th annual festival.

6

Issues and Prospects(We should advance the education of anti-disaster!)

1 We should see the education of anti-disaster in a better light

We have been careful about earthquakes and tsunami, because we thought that they were certain to hit us. We made a hazard-map and executed drop-drills. However, many people felt that they couldn't predict such huge damage, saying that they assumed they would be safe when hit by a disaster—and then this earthquake hit us. We can never be fully safe, and it will be necessary for us to check and improve how to make appropriate decisions in each situation, how to handle many things when there information cannot be obtained, and how to hand over students to their parents.

2 We should advance education for anti-disaster

- ① Our school will advance the education of anti-disaster to foster our sense of self-defense.
- ② Our school is the stronghold of anti-disaster for our community, so we should maintain a stockpile and a place for refuge.



Destruction of science room



Ceiling board of the music room fall down



Destruction of the cornerstone of school gate



Self-Defense forces was stationed at the school



Gunma symphony orchestra voluntary played music



We gathered at the time of disaster!
Linkage between school, parents and local society

Hashikami Elementary School

The Unprecedented Great Eastern Japan Earthquake of 3.11

SUZUKI Jinichi, Principal

1 Pre-Disaster School Overview

Our school is located in the south of Kesennuma. National Highway 45 and JR Kesennuma line run north and south. East of the school, there is a seaside area including two scenic beauties, Iwaisaki and Oisehama which are in the southern end of Rikuchu coast national park. West is hilly area. Center—the school is in one corner of it—is almost flat, and is dotted with agricultural land and residences.

The school is middle-sized and has 243 students, 24 teachers and 14 classes (including the special supporting class). Schoolchildren are gentle, obedient, spirited and have good manners, but they sometimes lack concentration on one thing and forget cooperation with their friends. All children walk to school from 13 different administration areas. In the region, there are many people who work for primary production, such as farming *wakame* (seaweed), scallops and oyster, cultivating rice, tea beans, and strawberries. The region is blessed with nature.



2 Immediate Post-Disaster Situation

1 Suffering of schoolchildren and school staff

The day of the earthquake, two sixth-grade-students were drowning because of the tsunami after having been delivered to their parents, but they were rescued by local people. All of the schoolchildren escaped injury, but two children's mothers (both of them are fatherless families) and 10-20 relatives died because of the tsunami.

About half of the children's houses that students lived in were hit by the earthquake in Hashikami elementary school. All of the houses were damaged by tsunami, 45 of them totally collapsed, and 51 of them were almost collapsed. The children who could not live in their houses had to live with their relatives or in evacuation sites.

Eight school staff's houses (three of them were rentals) totally collapsed, so they had to live in schools or evacuation sites or relative's houses. Fortunately, no school workers were injured.

2 Damage of the school and district

The big earthquake caused great damage to the school buildings and the gymnasium. In six class rooms and toilets of the eastern school building reinforced anchor bolts in case of an earthquake were twisted and became unusable in danger. Everywhere in the school buildings the earthquake made cracks and exfoliated the walls. Furthermore, all displayed things fell and were damaged. As for the school equipment, elevated water tanks and the water heater were badly damaged and became out of use. At the gymnasium, about 40 sheets of windowpanes were broken and the plate of songs for schoolchildren's committee fell and were badly damaged. The outer wall was cracked and exfoliated in every place.

Nine of 13 administration areas lost all of their functions as administration areas because of the tsunami, and changed



into uninhabited, barren places. Only debris from collapsed houses due to the tsunami lay in heaps. Ten months have passed since the big earthquake hit this area, but large-size vehicles have still been moving the debris all day long. It's so dangerous for the children to go to school.



3 Immediate Post-Disaster Responses, and the School's Role

1 For the first week from the earthquake

For the first week from the earthquake, we confirmed the safety of 243 schoolchildren and cooperated in the administration of evacuation sites. The day of the earthquake, for the lower-grade schoolchildren (under third grade) who were on their way home from school, each school staff paired off into couples and confirmed the safety of children one by one in school districts except for danger zones. We were at a loss how should we confirm the safety of schoolchildren. It took a long time to do so, because about half of the children's houses (completely-destroyed: 45, partially-destroyed: 51) were damaged by the earthquake. Six days later, we finally finished confirming the safety of all children, thanks to all school staff's legwork to the homes, etc., of children's relatives in the districts.

Both materially and spiritually, cooperation was needed, because the gymnasium of Hashikami junior high school had been designated as the area evacuation site. All school staff cooperated to bring relief supplies and daily necessities (tents, cooking stoves, fire extinguishers, flashlights, blankets) from the elementary school.

For administration of evacuation sites, we mainly worked hard by distributing boiled rice and controlling emergency vehicles and schoolchildren. All of the school staff cooperated at every meal for distributing boiled rice, guiding evacuated residents, and clearing the tables. It was hard work to set the tables, because the greatest number of evacuated residents amounted more than 1,200 persons. As for offering vehicles, we gave evacuated residents who saw a doctor regularly a ride to the hospital and stayed with them all day long to support them.

2 Incidents directly after the earthquake, and the actions of managers

■=main incidents ○=manager's instructions and action ☆=situations

March 11 (Friday)

After part of the third grade and all of the lower grades schoolchildren's got out of school

- 14:46 ■ The magnitude 9.0, Japanese scale 6 weak, Tohoku earthquake occurred near the coast of Miyagi prefecture.
 - At the same time of the occurrence of the earthquake, we instructed to confirm the safety of schoolchildren by the school PA (public-address) system.
- 14:50 ○ We made the children evacuate to the first evacuation site (school grounds) due to the danger of collapse.
- 15:00 ■ The Meteorological Agency issued a big tsunami warning and ordered evacuation.
 - We finished taking schoolchildren to their parents (about 15 children).
- 15:25 ■ Tsunami hit the north side of the school ground.
- 15:30 ○ Due to the danger of the tsunami, I made the children evacuate secondly to Hashikami junior high school.
- 15:50 ■ Part of the third grade and higher than fourth grade, 119 children, finished evacuation to Hashikami junior high school.
 - ☆ Due to the disconnection with parents, 124 children were unknown whether safe or not.
- 16:00 ○ The gymnasium of the junior high school was designated as the evacuation site, so I ordered the vice-principal to carry relief supplies and daily necessities (tents, cooking stoves, fire extinguishers).

- 17:00 ☆ We had word that sixth grade children were washed away by the tsunami.
18:00 ☆ We had word that the two children were saved.
■ We could not use electricity, water, or telephone services.
19:00 ○ I ordered 18 school staff to administer the children and evacuation sites.
☆ We had a sleepless night because of cold and hunger.

March 12 (Saturday)

- 8:00 ■ Representatives of the area and five staff members of the city administered us for evacuation sites.
☆ We appointed eight boiled-rice staff and two emergency-vehicles staff.
9:00 ○ I ordered eight school staff to confirm the children in evacuation sites.
11:00 ☆ The staff in charge confirmed the safety of families of school staff.
16:00 ■ We prepared for boiled rice, helped to set the table. (We could eat foods at last.)
17:30 ■ We had confirmed the safety of 133 children, but still hadn't confirmed the safety of 110 children.
☆ Ten schoolchildren in the evacuation area still hadn't met up with their families.
18:00 ☆ 24-hours had passed since we stayed in the gymnasium. We couldn't go out from evacuation sites, and couldn't use cellular phones.
19:00 ☆ We couldn't confirm the safety of the children in the lower grade and part of the third grade.
○ I ordered 18 school staff to administer to the children and evacuation sites.

March 13 (Sunday)

- 8:00 ■ Representative of the area and five staff members of the city instructed us to administer to evacuation sites.
☆ We appointed eight boiled-rice staff and two emergency-vehicles staff.
8:30 ○ I ordered to school staff maximum support for evacuated residents and told them to supervise schoolchildren correctly.
☆ All evacuated schoolchildren met their family.
9:00 ■ 14 school staff did legwork to make a list of evacuated residents.
10:00 ☆ The staff in charge of confirmed the safety of families of school staff.
16:00 ■ We prepared for boiled rice, helped to set the table.
☆ 48-hour has passed since we stayed the gymnasium. We couldn't go out from evacuation sites and couldn't use cellular phones.
18:00 ☆ We couldn't confirm the safety of the children in the lower grade and part of the third grade.
19:00 ○ I ordered 14 school staff to administer the children and evacuation sites.
21:00 ○ I took part in the representative meeting.

March 14 (Monday)

The first day of cancellation classes

- 6:30 ■ We prepared for boiled rice, and helped to set the table.
7:00 ○ I divided the work into the elementary school and the junior high school.
☆ The elementary school: confirming the safety of the children and restoring the staff room.
☆ The junior high school: administering for evacuation sites.
8:00 ■ I took part in the representatives meeting at the evacuation site....
8:30 ■ Three city staff prepared the way for laying out the bodies of the victims in the gymnasium of the elementary school.
○ I ordered homeroom teachers to confirm the safety of the children by forming pairs and walking.
9:00 ■ Homeroom teachers tried to confirm the safety of the children.
10:00 ■ I arranged two school staff for taking to the hospital.
16:00 ■ We prepared for boiled rice, helped to set the table.
☆ 72-hour had passed since we stayed in the gymnasium. We permitted going out from evacuation sites on foot, but we couldn't use cellular phones.
☆ All classes finished confirming the safety of the children half or above.
19:00 ○ The vice-principal stayed at the elementary school. I ordered 13 school staff to administer the children and evacuation sites.

March 15 (Tuesday)

The second day of cancellation classes

- 6:30 ■ We prepared for boiled rice, helped to set the table.
7:00 ○ I ordered the school staff to work in the elementary school and the junior high school.
☆ The elementary school: confirming the safety of the children and restoring the principal's office.
☆ The junior high school: administering at evacuation sites.
8:00 ■ I took part in the representatives meeting at the evacuation site...
8:30 ○ I ordered vice-principals to support the mortuary.
9:00 ○ I ordered homeroom teachers to confirm the safety of school children by forming pairs and walking.

- 9:30 ■ Homeroom teachers tried to confirm the safety of the children.
- 10:00 ■ I arranged two school staff for taking persons to the hospital.
- 13:00 ☆ Except for one schoolchild (first grade girl), we confirmed the safety of 243 children.
- 16:00 ■ We prepared for boiled rice, helped to set the table.
☆ We couldn't use cellular phones.
- 19:00 ○ The principal (myself) and the vice-principal stayed in the elementary school. I ordered eight school staff to administer to the children and evacuation sites.

March 16 (Wednesday)

The third day of cancellation classes

- 6:30 ■ We prepared for boiled rice, helped to set the table.
- 7:00 ○ I ordered school the staff to work in the elementary school and the junior high school.
☆ The elementary school: confirming the damage of the school buildings.
☆ The junior high school: administering for evacuation sites.
- 8:00 ■ I took part in the representatives meeting at the evacuation site... We supported the activity of the mortuary.
- 9:00 ○ I ordered the first grade class teacher to confirm the safety of her missing child.
- 9:30 ■ The class teacher tried to confirm the safety of the child.
- 10:00 ■ I arranged two school staff for taking persons to the hospital.
- 11:00 ☆ Windowpanes of the gymnasium was broken. The eastern school building was out of use for the danger of collapse. The western school building was badly damaged and needed repairs.
☆ Finally we confirmed the safety of the missing child, and confirmed the safety of all of the 243 children.
- 12:00 ■ We prepared for boiled rice, helped to set the table.
- 16:00 ☆ The school staff were relieved by the confirmation of the safety of all of the children. We couldn't use cellular phones.
○ The principal and the vice-principal stayed in the elementary school. I ordered seven school staff to administer to the children and evacuation sites.
- 19:00 ■ After the conference with representative of evacuation sites and the principal of the junior high school, we fixed the 22 of March as the date of graduation ceremony of the school, and 24 of March as the date of the completion ceremony at Hashikami junior high school.

March 17 (Thursday)

The fourth day of cancelled classes

- 7:00 ■ We prepared for boiled rice, helped to set the table.
- 8:00 ○ I ordered the school staff to work in the elementary school and the junior high school.
- 8:30 ☆ The elementary school: distributing handbills of the graduation and completion ceremonies.
☆ The junior high school: administering at evacuation sites.
- 8:30 ■ Leader meeting of the evacuation center Support the makeshift temporary morgue
- 10:00 ■ Homeroom teachers walked and distributed handbills of the graduation and completion ceremonies.
- 11:00 ■ I arranged two school staff for taking persons to the hospital.
- 16:00 ■ We prepared for boiled rice, helped to set the table.
☆ We couldn't use cellular phones.
- 19:00 ○ The principal and the vice-principal stayed at the elementary school. I ordered six school staff to administer to the children and evacuation sites.

4 Engagements Aimed at School Reopening

For reopening the school, we particularly worked for the graduation ceremony and the completion ceremony for the class of 2010. We also worked for reconfirming the children's whereabouts, inspecting dangers in the school zone, and sending our school information. First of all, we asked the principal of Hashikami junior high school to let us use a part of the gymnasium, then used as an evacuation site, for the graduation ceremony, because the gymnasium of elementary school was badly damaged. Then, we (the elementary school and the junior high school) asked representatives of evacuation sites and city staff to use a part of the gymnasium for the graduation ceremony. As a result, we obtained the consent of evacuated residents, and we could use it. We decided to hold both the graduation ceremony of the elementary school and the junior high school on the same day and in the same place, because of the trouble of movement for evacuated residents. On the day of the ceremony, we managed to hold it, and many evacuated residents saw 39 graduates (three were absent) off.

The completion ceremony was held at tennis courts of the junior high school on March 24. Although some of children didn't have transport and couldn't be present, 179 schoolchildren (22 were absent) were cheerfully

present at the ceremony. After that, April 21 (Thursday) was fixed as the date of the beginning of the new school term, so we mainly prepared for the new schoolchildren who would enter our school. We also supported the activity of the mortuary, and prepared for accepting evacuated residents. Special classrooms were also used for arranging schoolchildren's classrooms, because of the bad damage of the school buildings. However, that was not enough, so we screened off classrooms to make two classes use the place at the same time. We did our best to restore the learning environment to that before the earthquake. For example, we transported desks and chairs for schoolchildren and removed the books in library, and set up the place for hanging children's belongings.

[For graduation ceremony and completion ceremony]

■=main incidents ○=manager's instructions and action ☆=situations

March 18 (Friday)

fifth day of canceled classes Unofficial notification 16:00 p.m.

■ We prepared for boiled rice, helped to set the table.

○ I ordered the school staff to work in the elementary school and the junior high school.

☆ The elementary school: distributing handbills of the graduation and completion ceremonies.

☆ The junior high school: administering at evacuation sites.

■ I took part in the representatives meeting at the evacuation site. We supported the activity of the mortuary. I arranged two school staff for taking persons to the hospital.

■ Homeroom teachers walked and distributed handbills of the graduation and completion ceremonies.

☆ It took us a whole day to distribute the handbills of the graduation and completion ceremonies.

☆ We could eat snacks like sweet rolls at noon, because we got many relief supplies.

○ The principal and the vice-principal stayed at the elementary school. I ordered 7 school staff to administer to the children and evacuation sites.

March 19 (Saturday)

■ Thanks to the rescue operations of the Self-Defense Forces, supporting with boiled rice was over.

○ I ordered the school staff to work in the elementary school and the junior high school.

■ I took part in the representatives meeting at the evacuation site. We supported the activity of the mortuary. I arranged two school staff for taking persons to the hospital.

☆ The elementary school: preparation for the graduation ceremony and the completion ceremony.

☆ The junior high school: administering at evacuation sites.

○ I ordered the school staff to prepare for graduation ceremony and completion ceremony.

☆ Preparation of hall for ceremonies and the confirmation of graduation certificates.

☆ We made each grade's certificates of the completion of studies, and news.

■ We supported the children in evacuation sites. (From this day, the activity was continued for two hours in the afternoons.)

○ The principal and the vice-principal stayed at the elementary school. I ordered eight school staff to administer to the children and evacuation sites.

March 20 (Sunday)

○ I ordered all school staff to work in the elementary school and the junior high school.

☆ The elementary school: preparation for the graduation ceremony and the completion ceremony.

☆ The junior high school: administering for evacuation sites.

■ I took part in the representatives meeting at the evacuation site... We supported the activity of the mortuary. I arranged two school staff for taking persons to the hospital.

○ I ordered the school staff to prepare for the graduation ceremony and the completion ceremony.

☆ We prepared the hall for ceremonies and made each grade's certificates of the completion of studies

■ We supported the children in evacuation sites (for two hours).

○ The principal and the vice-principal stayed at the elementary school. I ordered eight school staff to administer to the children and evacuation sites.

March 22 (Tuesday)

■ We held the graduation ceremony from 9:30 a.m. at Hashikami junior high school.

☆ Three of 42 graduates were absent because of refuge. Two parents of the absentees were present.

☆ Many evacuation residents in this district were also present, so the ceremony was held on a grand scale.

☆ We held both graduation ceremony of the elementary school and the junior high school on the same day and in the same place.

○ The principal and the vice-principal stayed at the elementary school. I ordered 7 school staff to administer to the children and evacuation sites.

March 23 (Wednesday)

sixth day of cancellation classes

Announcement of personnel changes in school at 1:00 p.m.

- I ordered the school staff to work in the elementary school and the junior high school.
- ☆ The elementary school: preparation of the completion ceremony, and putting all necessary documents in order.
- ☆ The junior high school: administering at evacuation sites.
- I took part in the representatives meeting at the evacuation site... We supported the activity of the mortuary. I arranged two school staff for taking persons to the hospital.
- We confirmed each grade's certificates of the completion of studies, as well as schoolchildren's whereabouts.
- We supported the children in evacuation sites with parents who joined this activity as volunteers (for two hours).
- The principal and the vice-principal stayed at the elementary school. I ordered six school staff to administer to the children and evacuation sites.

March 24 (Thursday)

- I ordered all school staff to work in the elementary school.
- We supported the activity of the mortuary.
- The completion ceremony for the class of 2010 was held at the tennis courts of Hashikami junior high school.
- ☆ 179 children were present, 22 were absent.
- ☆ Children who met friends again after a long time looked so happy.
- I ordered homeroom teachers to get in touch with their children.
- We put all necessary documents in order in the afternoon.
- The principal and the vice-principal stayed at the elementary school. I ordered eight school staff to administer to the children and evacuation sites.

5 School and Local Community Cooperation

Our school education has been supported by local people, so we made a slogan: "Now, let's do our best for local people." With the slogan, all school staff worked for children's parents and local people.

1 Administering at the evacuation site (the junior high school)

At that time, Hashikami junior high school was the only evacuation site in the district, so all school staff worked at offering necessities (blankets, tents, cooking stoves, flashlights, fire extinguishers), personnel, and vehicles to support evacuated residents who saw a doctor regularly, distributing boiled rice for 1,200 persons, and clearing the table for about one month. We also tried to improve our evacuation site by confirming the number of persons to make lists of evacuation residents, and by participating in the representatives meeting.

2 Supporting the activity of the mortuary

Three days after the earthquake, the gymnasium of the elementary school was selected as the mortuary. We offered all necessities for the mortuary. For example, we spread blue sheets on the entire floor and white clothes on the tables preparing for floral tributes. During the night, the principal and the vice-principal went around the buildings of the empty school. For the bereaved who came to the school to confirm the dead bodies early in the morning, we warmed the classroom that was used as a reception place, and let them wait for the city staff and police. We also served tea and made copies as the need arose.

3 Supporting evacuation residents

Hashikami junior high school, which was selected as the only evacuation site, struggled to reopen the school, so its evacuation residents were divided into the elementary school and public halls. Our elementary school offered three classrooms (the art class room, computer room, and library) as evacuation sites. The school staff took the initiative in supporting the evacuation site of the elementary school, because the city staff didn't have enough time to do that. For offering the place for evacuation sites, we moved all desks and chairs (also cleaned the tools) in the art classroom, 6,000 books in the library and cleaned the desks, chairs and sets of computers in the computer room. We also cleaned the classroom carefully and accepted the evacuation residents.

At the same time, all dead bodies in the gymnasium were moved to another mortuary. The principal and the vice-principal stayed at the school and administered the evacuation residents and equipment like at the time of the mortuary, because city staff couldn't always stay there.

6 Issues and Prospects

The biggest problem is restoring six classrooms in the eastern school building and three toilets that were damaged by the earthquake and were out of use. The number of classroom is not enough for us now. We use the special classrooms for music and home economics now, but the children cannot study looking straight ahead, they are so restless. At the same time, the other class cannot use those classrooms for their special class. Before the earthquake, we used toilets in each floor. Now, we use temporary toilets on the other side of the school buildings. We were relieved at the news that the restoration of the toilets was starting from January. This news was from the Board of Education of the city.

In our disaster prevention and response education into the future, we will emphasize the perspective that “A disaster is sure to occur,” and have schoolchildren learn to “think and act for themselves” when such a disaster does indeed occur. Through the experience of learning those things in practice, children will be able to think by themselves. For disaster measures in the district, we think that we will try to cooperate with Hashikami junior high school like before and work with local people. We also think that the school staff will take initiative in the district, and make efforts to help protect from disasters.



Actions Towards the Reopening of Oshima Elementary School

KIKUTA Eishiro, Principal

1 Pre-Disaster School Overview

1 Local Information

(1) Natural environment

Oshima is an island with a circumference of 22 kilometers and an area of 9 kilometers square, located in Kesenuma Bay, the south of Rikuchu Kaigan National Park. The eastern and southern parts of the island face the Pacific Ocean, and there are beautiful sea caves to the south in an area called Tatsumaizaki.

In addition, in the northern area, there is Mt. Kameyama, 235.2 meters high, and Kugunarihama beach which is famous for its geographically high-value *singing* sand (sand that makes sounds when a wind blows). Oshima is a “healing” island focusing on environmental studies and experiences in rich natural surroundings while also undertaking tourism development. As the Japanese poetm Fuji Mizukami, wrote: “The sea is a source of life, the waves are the brilliance of life, may Oshima forever be the green pearl.”



Oshima Elementary School

(2) Local economy

As of January 2011, there were 13 administrative districts, 1,124 households, and 3,249 people in Oshima island. In the districts, company workers who commute to the urban area account for about half the population.

In addition, there are many people engaged in marine boats and ships for coast fishing and tankers.

(3) Education

Community residents care greatly about the school and also their expectations for the school are high. They are very cooperative with a sense of “local” school.

2 Number of pupils

●Grade1	14	●Grade2	17	●Grade3	14	
●Grade4	24	●Grade5	23	●Grade6	25	
					Total	117

3 Number of staff

●Principal	1	●Vice-principal	1	●Teachers	9	
					Total	11

4 Featured education

- Sand design exhibition
- Swimming marathon contest
- Athletic meeting with junior high school
- Outdoor cooking with junior high school
- Jump rope contest



Sand design exhibition

2 Immediate Post-Disaster Situation

1 Support To Pupils

- 14:46 ●The earthquake occurrence.
- 14:54 ●Completion of evacuation to the schoolyard. 101 pupils from second grade to sixth grade (2 absent pupils) and 11 school members (one on business trip, one on paid holiday). First grade pupils had already gone home.
- Residents around the school as well as pupils' parents evacuated to the schoolyard.
- 15:05 ●Pupils were evacuated to the school gymnasium because it started to snow.
- 15:15 ●Pupils were evacuated to the schoolyard again because there was a potential that the mercury lamps might fall.
- 15:45 ●Pupils were evacuated to the gymnasium again.
- 16:00 ●Confirmed the safety of all the 14 first graders.
- 18:45 ●The number of evacuees totaled approximately 350.

2 Staff's Action

- School members borrowed space heaters from neighbors and children's hall around the school because it was cold.
- As the number of evacuees increased, members guided cars to the empty spaces in car park when the evacuees come to the school by car.
- Staffs flushed toilets with the water from school swimming pool since the toilets would not flush.
- Staffs collected torches and other lighting devices in the gymnasium.
- Three male members participated in fighting a mountain forest fire.



Using the pool water after cleaning up

3 Damage To Pupils' Houses

	Fully destroyed	Half destroyed	Partially destroyed
By earthquake	0	1	22
By tsunami	13	4	1
Total	13	5	23

4 Damage, the number of staffs

- Loss of house, two
- Loss of car, four
- Washed out house ground floor, two
- Loss of apartment building, two
- Missing father, one
- Death of parents-in-law, one

3 Immediate Post-Disaster Response, and The School's Role

1 Response After The Earthquake

- As Oshima school's gymnasium is designated as a broad-area refuge site by local government, many people around the Oshima school evacuated here. All the pupils were evacuated except for first grade students. Later on, all of the first grade pupils were confirmed to be safe.

2 The Role Oshima Elementary School Played

- Oshima Cooperative Cooking Place was used as the evacuees' kitchen.



Our gym used as a refuge site

- Supplies were stored in classrooms and corridors on the ground floor.
- The entrance lobby was used as a distribution center of aid for each district.
- The school health room was operated as a clinic for the general public.



Our health room used as a clinic

4 Engagements Aimed at School Reopening

1 Reopening Oshima Cooperative Cooking Place for School

Due to the earthquake, Oshima Cooperative Cooking Place was used as the evacuees' kitchen. Members of the Women's Association helped cooking there. However, we needed to use the cooking place as the site for school lunch provision again, and looked for another cooking place for evacuees in order to restart our school lunch service. We had meetings with the city's Board of Education a few times and discussed what would be the best place among alternatives, the Junior high school's kitchen for homemaking course or the kitchen of the city's development center, or somewhere else. Finally, a new temporary cooking place was built as a cooking space for evacuees. As people walked inside the Oshima Cooking Place with their shoes on, the cooking place was cleaned up with the help of a Women's association. Then school lunch service was resumed.



Temporary cooking building

2 Checking of the School-Commuting Routes

Although our school reopened on April 4, many places on school-commuting routes were badly damaged because of the earthquake and the tsunami. As some places were too dangerous for pupils to walk, we divided the school members into three groups and checked on all the commuting routes in the island, and took photos of the dangerous places. The photos were put on the island's map, and we went over them with all the students.



Debris on a road washed away by the tsunami.

3 Holding of PTA Assembly

The PTA assembly was finally held in June. PTA members had evacuated to respective secondary refuge sites, and they were scattered throughout the island. Each special committee could have no prospect of recovery, and a study tour planned by the cultural committee was called off. However the cultural committee organized a choral society and sang at the School Play.

4 Questionnaire about Children's Mental and Physical States

In April, we were concerned about children's mental problems, and sent a questionnaire to parents regarding their children's states after the earthquake. We received responses that included the following: children behaving like a baby, not able to go to the toilet/bathroom alone, not able to sleep alone. I asked the homeroom teachers in charge to warmly care for every single pupil. There were children getting up from their chairs when an aftershock happened, but teachers tried to calm them down.

5 School and Local Community Cooperation

1 Holding an Athletic Meet

Oshima Elementary and Junior High School Great Athletic Meet was held on May 21 (Saturday). As many parents were at secondary refuge sites, the meeting was finished before lunch. Volunteers staying in Oshima also cheered up the meet by participating in a relay and tug of war.

2 Cleaning Odanohama Beach

Every year, school events such as a Sand Design Exhibition and Swimming Marathon Contest were held at Odanohama Beach. However those events were called off because the beach was too dangerous as a result of the tsunami.

Sixth grade students engaged in cleaning activities twice at Odanohama Beach for recovery. All the children worked hard sifting the sand containing debris, and digging up big branches stuck in the sand.

3 Exchanges with People Living in Temporary Housing

Sixth graders had an exchange with elderly people at temporary housing. The children made sweets for them, played cards, and gave them shoulder massages. The elderly people were delighted. Also, children's heart of kindness to elderly people was grown.



Sifting the sand



Six graders giving massages.

6 Issues and Prospects

1 Issues

- A bookshelf in the library was badly damaged due to the earthquake. It still has been broken even in this third term. Children are told to stay away from it.
- There are so many cracks in the school buildings.
- Supplies are still in cardboard boxes at the meeting room at the gym.
- The water heater is still broken.

2 Prospects

- We received so much domestic and international support. Our children wrote and sent thank-you letters to as many as possible. We told children that if a huge earthquake happens in the future, they should think about what they can do and move into action.
- It is important to prepare necessities in case an earthquake disaster like the Tohoku Earthquake disaster happens again. In our gym, we have crackers, biscuits, rice, disposable diapers, toilet paper, and other emergency supplies.



Library damage due to the earthquake.



Sending a thank-you photo to a scarf giver.

Omose Elementary School

Reopening Our School With the Support of the Cheerful Spirits of Our Children and Local Community

SATO Kiyotaka, Principal

1 Pre-Disaster School Overview-

Name: Omose Primary School

Address: 58, Akada, Matsushita, Kesenuma City. 988-0133

Tel: 0226-22-7800 Fax: 0226-26-7215 e-mail: omo-s14@marble.ocn.ne.jp

1 About the school district

- Omose Primary School, which was established on April 1st, 1984, is the newest one of its kind in the city. As the number of students in Matsuiwa Primary School and Hashikami Primary School increased, Omose Primary School was established to improve the educational environment and to adjust to the growing number of kids.
- The district stretches about four kilometers from east to west and two kilometers from north to south, and the Omose River flows from east to west around the center of the district. The district faces Matsuiwa Primary School district to the north, Hashikami Primary School district to the south, and Mizunashi Primary School district to the west. The eastern side and three adjacent areas of the district face the Bay of Kesenuma.
- The Omose area consists of 11 administrative districts and became an independent administrative area on April 1st, 2008. The area has 8.8% of its total population in the city, the fourth largest after Kesenuma, Matsuiwa, and Shishiori.
- As a facility that gained a communications center after its political independence, the school collaborates with interested organizations for youth development and development of the region through the establishment of Omoai Fureai Center, activities with the comprehensive local sports club named NEO, and activities with self-governance associations, and so on.

2 Number of students and classes at the time of March 11th, 2011

Grade	1 st		2 nd		3 rd		4 th			5 th		6 th		Special Education	Total	
Class	1	2	1	2	1	2	1	2	3	1	2	1	2	Emotional; Physically	15	
Students	29	28	34	34	35	36	27	27	27	37	37	35	35	2	1	424
	57		68		71		81			74		70		3		

3 Number of faculties

Principle	Vice principle	Teacher	School nurse	Part-time teacher	Office clerk	Assistant clerk	Assistant for special education	School worker	Total
1	1	17	1	1	1	1	3	1	27

4 Attempts for making the school distinctive

- ① Promotion named ESD for students to strengthen active thinking ability and practical skills (environmental education).
- ② Practical use of NIE for comprehensive learning in collaboration with the publishing company, The Kahoku Shimpō.
- ③ Collaboration with a comprehensive local sports club, NEO, for development of youth and strengthening of local educational functions.
- ④ Reading activities such as book reading and story telling and reading aloud sessions.
- ⑤ Small classes aimed at improving students' math abilities.
- ⑥ International education through class activities that require students to speak foreign languages; this program is offered to students of any grade.

2 Immediate Post-Disaster Situation

1 Damage to the school

① Gymnasium: There was a risk when opening and shutting the windows on the second floor because the frames were deformed. A steel frame supporting the second floor was bent.

② Music room



Walls of the ceiling and side came off.



The room could not be used due to the falling of four air ducts.

③ Water receiving tank: Water leak caused by land subsidence (during about 2.5 months). The tank was repaired.

④ Septic tank: The tank leans because of the land subsidence.



⑤ North side of the school building



There are many cracks on the surfaces of the walls.

⑥ Water heaters on each floor: They still cannot be used because of a water leak caused by cracked pipes.

2 Damage to the local areas

① Every house was swept away in the Ozaki area.

② Many houses were partially or completely destroyed in Senganda and Simosawa.

3 Students' situation

① Number of students who lost their father: 1

② Number of students who lost their mother: 1

③ Number of students who lost a grandparent or grandparents: 16

④ Number of students whose house was swept away or completely destroyed: 54

⑤ Number of students whose house was partially destroyed: 40

⑥ Number of students whose house was severely but partially destroyed: 33

4 Faculty members' situation

① Number of faculty members who lost their father: 1

② Number of faculty members who lost a stepfather or stepmother: 3

③ Number of faculty members who lost their child: 1 (three-year-old girl and one-year-old boy)

④ Number of faculty members whose house was completely destroyed: 3

⑤ Number of faculty members whose house was partially destroyed: 4

⑥ Number of faculty members whose house was severely but partially destroyed: 40

3 Immediate Post-Disaster Responses, and the School's Role

1 When the earthquake happened (03/11/2011)

- ① The school announced an evacuation order, and made students go to the first evacuate area, the school playground.
 - Some second grade students were on their way home when the school called them back.
- ② Guardians came to pick up some students. Homeroom teachers confirmed their families and allowed the students to leave.
- ③ A large-scale tsunami warning was announced. The school announced the second evacuation order.
 - They evacuated to Omore Junior High School.
- ④ Guardians came to pick up some students. Homeroom teachers confirmed their families and allowed students to leave.
 - There were 11 students who could not contact their parents/guardians. The school made them wait.
 - Eight students were picked up by their parents a day later. Three students stayed.
 - The school could not confirm the safety of students and parents after they left.
- ⑤ The school administration set up a shelter in the gymnasium of Omore Junior High School. Both Omore Primary School and Omore Junior High School faculty members dealt with the situation as a temporary evacuation headquarters.
 - They carried judo tatami mats to the gymnasium and used them as sleeping mats.
 - There were 400-500 evacuees at the time.
 - The supply of electricity and water stopped. Telephones and toilets could not be used.
 - They collected heaters and kerosene lamps and set them in the gymnasium.
 - They distributed blankets from stockpiles.
 - They drew water from the pool in the school for toilets. They secured drinking water from a water tank.
- ⑥ Aftershocks, reaching an intensity of 5 on the Japanese seven-stage seismic intensity scale, continued throughout the day. The large-scale tsunami warning was still in effect.
- ⑦ The tsunami was within 90-150 meters from Omore Junior High School, and subsequently no one evacuated to Omore Junior High School. Faculty members set up a bulletin board at the school building to let people know the evacuation site was Omore Junior High School.

2 After 3.11

- ① A temporary faculty room for Omore Primary School was set in Omore Junior High School.
 - Guardians and local people could make inquiries at the room.
 - Regular meetings by Omore Primary and Junior High School's faculty members were held; confirmation of attempts and role-sharing at the evacuation area were recorded.
 - Regular meetings by both school's principals and vice-principals were also held; participants collected and shared information about the students' situation, municipal board of education, and local associations.
- ② City employees who were in charge of Omore area visited Omore Junior High School on March 13th.
 - An evacuation headquarters was set up: it consisted of city employees, a principal of a nursery school, principals of the primary school and junior high school, fire-fighting organizations, and members of local volunteer clubs and local associations.
 - Meetings at eight o'clock in the morning and at night were held; information about each association was shared and managing the evacuation site was discussed.
 - Free meals were offered by local volunteer clubs. School faculty members assisted them.
 - School faculty members confirmed the safety of students who were picked up before the tsunami came at the schoolyard of the Primary School.
 - The safety of all students was confirmed on March 16th, 2011.
- ③ A gymnasium of Omore Primary School was released for the use of a morgue, and classrooms were used as drawing rooms on March 16th.
 - The primary and junior high school faculty members set up the morgue and drawing rooms.
 - Windows on the west side of the school building were sealed so the gymnasium could not be seen from the classrooms.
- ④ The use of the gymnasium as a morgue stopped on Friday, April 15th, 2011.

4 Engagements Aimed at School Reopening

- ① Students' lives at the shelter. (School faculty members took care of students and assessed their mental health.)
 - Morning activities for the Primary School students and Junior High School students: health exams, singing in the morning, exercises, recreation, sharing ideas among students, and so on. Different faculty members were on duty for these morning activities each day.
 - Learning at a study room: A room in the Junior High School was used as a study room. Students were encouraged to study there. The Junior High School students offered learning support for the Primary School students.
 - Thank-you letters and origami were presented to volunteer staff who worked at the shelter. Students were encouraged to mingle with people such as the volunteer staff and the Junior High School students.
- ② The school administration posted notices for local districts and shelters.
 - School faculty members made posters because printers and computers could not be used due to power failure. They posted posters three times (March 18th to April 17th, 2011).
 - Situations in the shelter and schedules for reopening the school.
 - The faculty members requested parents to encourage their children to live a normal life.
- ③ The school administration started handing over students' belongings such as satchels, sportswear and school supplies. (The school set a person in charge of the task.)
 - The administration made announcements on the school board and handed over the students' belongings after it checked the safety of the school building.
- ④ Safety check of school routes.
- ⑤ Maintenance of the inside of the school building.
- ⑥ After the return of electricity on Wednesday, March 23rd, the school set a staff room in the Primary School, which was temporarily in the Orose Junior High School on March 24th.
- ⑦ Preparation for the graduation ceremony
 - The graduation ceremony was performed at the multi-purpose room in Orose Junior High School since the gymnasium in the Primary School was used as a morgue.
 - The school faculty conducted activities such as printing and bookbinding of the graduation booklets, checking diplomas, and sending guest invitations; only the PTA president was invited.
 - The school administration asked TBC Tohoku radio broadcasting to announce the dates of the graduation ceremony and the completion ceremony, which marks the close of the academic year.
 - The graduation ceremony took place on Friday, March 25th at 10 a.m. in the multi-purpose room in Orose Junior High School.
- ⑧ The completion ceremony
 - The ceremony was performed on Monday, March 28th via broadcasting within the school.
- ⑨ School day, the opening ceremony of the school term, and the school entrance ceremony.
 - School days were announced on Wednesday, April 13th, via broadcasting within the school. The school faculty finalized the teaching roster and assigned a teacher to be in charge of each grade. School faculty members were introduced to students, health surveys were given to students, students' safety was confirmed, and the school routes were checked. The school also gave instructions to students about how to spend time until the academic year started.
 - The opening ceremony of the school term was announced via broadcasting within the school on Friday, April 21st at 10 A.M. in the multi-purpose room in the Orose Junior High School. The school faculty members decided who would supervise students when the students left school, discussed educational counseling for students and their parents, and checked textbooks and handouts. They also reexamined the school routes.
 - The opening ceremony took place at the multi-purpose room in Orose Junior High School on Friday, April 22nd, at 10 a.m.
- ⑩ Preparations for restoring the gymnasium and classrooms to their normal functions because the use of the gymnasium as a morgue was discontinued.
 - A city official was tasked with cleaning the gymnasium and classrooms. School faculty members also assisted with the clean-up effort and waxed the floors.
 - Although the gymnasium of the school was temporarily a morgue, the restoration of the gymnasium and classrooms did not impact the reopening of the school.
- ⑪ The school faculty members shared four ideas about the reopening of the school on Monday, April 25th.
 - Students should be encouraged to live normal lives and complete occasional health surveys.
 - Students should be encouraged to develop good study habits.
 - Role-sharing activities among students should be encouraged, so students can feel like they contributed to others.
 - Room should be made for students so they can play with friends and exercise.

5 School and Local Community Cooperation

1 The school reorganized faculty members into two groups: the Omore Junior High School shelter and local community support, after the school confirmed the safety of students.

- Local community support; they distributed food and beverages in the areas of Omore district and district where faculty members live (shelters were excluded). They also offered support for organizing relief supplies, assisting water wagons, cleaning, and distributing food especially around the shelter in Omore Junior High School.

2 Opening of the school to the public after the school restarted.

- Some of facilities in the local areas could not be used after the earthquake. Therefore, the school was opened to the public, including the gymnasium and the playground, as a place for social education, after the gymnasium was no longer used as a morgue and the school had confirmed the safety of the school building.

① How the school was used.

- Memorial service with local communities for victims, Minato-Kesenuma restoration festival, recreational gathering for the aged, events for children in each district, events by City Board of Education (JL), Boy Scouts of sports, events by NEO, place for social welfare projects, Parents' day of the kindergarden, Yiugi, and so on.

3 Local gathering

The school offered opportunities for local people and students' parents to discuss disaster prevention and corporations among local people in all area of the school's district.

● Objective

To consider and discuss what local associations and the PTA of the area can do for the development of students, and to share information among each other.

● Participants

Members of PTA in the school area, president of local residence association, children's committee in each area, and faculty members in the local area.

● Topic "Reconsider about how to deal with disasters"

● Place: halls in local area and school

4 E-mail from the school to members of PTA

- The school mail information to PTA members. As local associations also want to subscribe, the school has been preparing for it.

6 Issues and Prospects

- ① Since many students experienced huge environmental changes such as change of address, lost of family members, unemployment of family members due to the earthquake, it is necessary to take care of students' mental health.
- ② Too much time, 20-30 minutes, was spent for all students to evacuate from the school playground as the first shelter to the second shelter. Therefore, a new evacuation route, which may require improvements of the school building, is needed to speed up the time of evacuation. Also, the school should reconsider about how parents pick up their children.
- ③ Many problems should be solved in terms of disaster prevention and interaction with local areas. The school should contribute to further education for students as a school of the local area, cooperating with local people and associations.

Karakuwa Elementary School

Aiming at the Revival of Our School and Local Area as Sites for the Vibrant Activities of Our Children

KAIHARA Takashi, Principal

1 Pre-Disaster School Overview

1 Brief Summary of the Region

Karakuwa Town, Kesennuma City, is located at the Northern tip of Miyagi prefecture, and most of the town is on the peninsula. It has the special beauty of the ocean-facing rias coast (a geographically distinctive notched coastline), a noteworthy pier, and oddly-shaped rocks. The coast is designated as Rikuchu Coast National Park, also known as the Sanriku Coast.

The main industry of the town has a lot to do with the ocean in front, and is represented by tuna distant-water fishing which has a long history, and coastal aquafarming such as of wakame seaweed, oysters, and scallops.

Karakuwa elementary school area consists of five administrative areas: Ishihama, Shuku, Moune, Shibitachi, and Naka. The school is located in the middle of the town. The local residents have high expectations for our school, since the long-hoped for new school buildings, a gym, and a pool were completed in 2009.

Moreover, the cooperative system among parents, neighborhood, and related organizations is well-organized, so activities related to society such as 'hometown studies' and 'public welfare studies,' and extracurricular activities such as oyster farming, have been actively conducted mainly by school supporting committee.

2 The Number of Students and Homerooms (as of March 11, 2011)

Grade	1st	2nd	3rd	4th	5th	6th	Special Education	Total
Students	21	13	29	31	22	35	3	154
Homerooms	1	1	1	1	1	1	2	8

3 The Number of Faculties: 13

2 Immediate Post-Disaster Situation

1 Overview of the community

When the earthquake happened, half of the first grade students were out of school, and they were walking out of the entrance hall or passing through the convenience store nearby. All the second grade students had left for home already. Third to sixth grade students were still in the classrooms. Right after the earthquake, shopkeepers at the convenience store told the first grade students to go back to school, so they returned to school quickly. First grade students around the entrance hall and those just returned to school were assembled in the middle of the schoolyard. Third to sixth grade students evacuated to the schoolyard after the earthquake stopped. Parents soon came to pick up their children, but a huge tsunami alert was announced, so the principal ordered the faculties and students to evacuate to the public hall nearby up on the hill. We all moved there quickly. Right after they



Oyster Farming: oyster shelling experience for sixth grade students



The very moment of the tsunami sweeping over toward Karakuwa Elementary School.

moved, the tsunami arrived. The principal saw the tsunami flow into the home improvement center and felt more danger, so he ordered all to move to a higher place. We ended up evacuating to a welfare facility called *Takamatsuen*, which is close to the top of the



View of the area around Karakuwa Elementary School, taken on March 12.



View of the damage in our school district.

mountain. Many of the remaining students were picked up by their parents by that night, but the faculty and students who were left stayed that night at *Takamatsuen*.

The tsunami that attacked our school reached the faculties' parking lot facing the ocean, however, the height of it was around 30 centimeters (about 10 inches). The next day (March 12), the faculty returned to the school and confirmed their students' safety and the damages to the school buildings. We found out that all of our students were safe, and that there was no significant damage to the buildings.

The damages in our school district were disastrous; a lot of residents and houses were swept away by the tsunami in Shuku, Moune, and Shibitachi district, which face the seaside.

3 Immediate Post-Disaster Responses, and the School's Role

We planned to open a shelter for the evacuees after March 12 and decided that a pair of male teachers would work night shift, taking turns. Residents in Moune district (about 60 people) came over to evacuate, so we opened two classrooms on the first floor to protect them from the cold weather. On March 15, residents and staff of the Hikarigaoka Home for the Mentally Ill, up to 300 people, suddenly evacuated into the gym of Karakuwa elementary school, due to the fire in Kesenuma Bay. However, the fire was extinguished by the morning of March 16, so the patients and staff returned to their facility. On March 17, 20 residents from Ura district evacuated, so we opened another classroom for the refugee shelter. We finally opened three classrooms total for the shelter. Moreover, since we were able to produce electricity with an electricity generator brought from Karakuwa branch office, we used two blue heaters to heat up the classrooms used as an evacuation site. We also provided the heating oil in the tank of our school.

4 Engagements Aimed at School Reopening

- ① Previous homeroom teachers visited their students' houses to check their conditions and family conditions in April, as well as holding special school days on April 7 and 14, asking about the students' health and family conditions.
- ② Since a first grade classroom has been used as a refugee site, we decided to use the art room as a classroom for the first-grade students. Moreover, the building of the Karakuwa kindergarten was destroyed by the earthquake, and they moved to our school to begin childcare; so, we decided to use the meeting room as a kindergarten director's office and the music classroom as a temporary nursery room.
- ③ All faculty members in Karakuwa Elementary School thought over the evacuation after the earthquake and confirmed that we will evacuate as below in case of a tsunami alert being announced. In addition, we informed parents about these directions by means of newsletters and parents meetings. Moreover, emergency contact to parents was changed from telephone calls to one mass emailing.

[Tsunami alert (huge tsunami alert) announced]

- First evacuation (school yard) ● Second evacuation (public hall)
- Third evacuation (move further to the higher places in the direction to Takamatsuen)

The evacuation site will be changed from first→second→third, depending on the situation. We asked parents to come to the evacuation site and pick up their children as soon as they establish their own safety.

- ④ Karakuwa Town had designated evacuation sites in each district, so the evacuee camps were coherent. Each evacuation site had meetings around representatives and decided rules of life. People lived a settled life while obeying these rules. Furthermore, there was still a refugee site on the first floor of the school building when Karakuwa Elementary School resumed, but the three classrooms used as evacuation sites were connected and could be separated from other part of the school by shutting all the doors, so we had no problem restarting our school while running the evacuee shelter.

5 School and Local Community Cooperation

- ① Four people (representative of the evacuation site, director at Karakuwa Education Center, president and vice-principal of Karakuwa Elementary School) regularly had meetings. We considered the problems in running the evacuation shelter and coordinated the restarting of the elementary school. After that, director of Karakuwa kindergarten joined the meetings to talk over starting nursing at our school, and to coordinate events between the elementary school and kindergarten.
- ② At that time, soup-run for refugees had been made by the local volunteers at the kitchen on the first floor of Karakuwa Fishing Village Center, which is located on the hill near our school. However, because the soup-run ended, and electricity, water, and gas recovered at Karakuwa Elementary School, our school and refugees decided to use the homemaking classroom to make their own meals.
- ③ Our school asked evacuating senior citizens to teach cooking and sewing to fifth grade students as instructors in homemaking classes. The children and their senior instructors enjoyed their activities, smiling and having a good time.

6 Issues and Prospects

- ① Right after the earthquake, we handed over the students to the parents who came to pick them up. However, evacuation to safe places is important while a tsunami alert is announced. Thus, not only Karakuwa Elementary School, but also parents need to have common understandings about how to correspond in response to disasters.
- ② It is important for children to be able to protect their own lives by themselves. In order to enable them to do this, evacuation drills simulating various kinds of situations are necessary.
- ③ There are dangerous spots such as cracks and damages on the roads in our school zone. We have asked the administration to repair those, but the progress has been very slow. Our school needs to involve the local community to keep crying out for the administration to accelerate the process.
- ④ The cooperative system between our school and society has been well-organized, and the extracurricular activities related to society such as 'hometown studies' and 'public welfare studies,' and experience activities such as oyster farming, have been willingly conducted mainly by a school support committee. Yet, due to the earthquake, it was hard to gain the cooperation of the local community this year. However, we would like to resume the experience activities such as oyster farming next year, collaborating with fishery cooperative associations and school support staff.

Moving Forward from the Disaster

MATSUMOTO Naoto, Principal

1 Pre-Disaster School Overview

- The school district is in the north east of Kesennuma City, at the tip of Karakuwa Peninsula. The whole district is in the Rikuchu Coast National Park, boasting one of the most beautiful sceneries of the Sanriku region, consisting mainly of coastline. Between the west side of the district and Oshima Island is the entrance into Kesennuma Bay, with several fishing ports such as Osaki Kanko, Nagahama, Tsumoto, Kadomari, and Kosaba. There are Takihama—near the school—and Sasahama Ports on the east side, which continues to Hirota Bay.
- The district consists of four parts called Sakihama, Matsuho, Nakai, and Kosaba. People of the area are closely united because many of the graduates have been engaged in deep-sea fishing. They are cooperative with the school and treat the children fondly.
- We had 98 pupils, 15 staff members, 6 classes, and 81 PTA members (on the earthquake and tsunami day). The kids are gentle and earnest about all activities. They were on good terms regardless of their school years, and lived a comfortable life in the calm environment. The parents are highly concerned with their school education and study, and over 80% of them always participated in the class get-togethers and PTA conferences or other activities. As a result, our school boasts of interchange learning with the local community, such as the neighborhood councils and the community centers, on various subjects and fields, in addition to the Education for Sustainable Development, which Kesennuma City advocates, integrated studies, and life environment studies.
- The number of the parents who actually take fishing boats and do fishery is decreasing, but many of them are still engaged in fishery by working for the fishery organizations or the marine products industry.

2 Immediate Post-Disaster Situation

1 Situation of the school after disaster

- When the strong horizontal shaking happened at 2:46 p.m., all the pupils were under the eye of the teachers (none was absent that day). The first and second grades were about to leave school after assembling to return home, the third grades just started the sixth period on the second floor, and the rest were in the gymnasium to rehearse the graduation ceremony.
- After the earthquake happened, we told the students on the school PA to protect their bodies, keep calm and listen to the PA and teachers, and prepare for the evacuation, and directed the teachers to keep the students safe and to make sure of their refugee routes. We repetitively told the students to endure the continual, strong and weak shakes, not seeming to cease. The pupils in the class rooms hid under the desks and clung to the desk legs, almost crying and getting tense, and in the gym protected their heads from the falling objects with the desks and chairs and kept calm even with anxieties in their looks.
- After the quake stopped, with the direction of evacuation, we fled to the south side of the school grounds, and made sure on the way that all of the students were safe, though many of them were with pale faces or tears, or trembling. It was lucky that the principal was in the school building, and the vice-principal and the curriculum coordinator in the gym, so that they were able to manage the evacuation respectively.
- Just after all the students gathered, we moved to the south-west side of the grounds because cracks in the grounds were reported from the teachers, and we knew from the locals that the grounds were composed of landfill.
- After the evacuation, we sent emails to the parents to tell them of their children's safety, and called the City Board of Education, but the line was already cut off.

- We could not go back into the buildings because of the aftershocks, so we made use of a portable radio to catch up on the situation. We learned that a big tsunami warning had been given, so we decided to keep the pupils away from the sights of the sea, and not to agree to hand them over to their parents for a while since the school was on the hill.
- About thirty minutes after the earthquake, the first tsunami came from Takihama, in the north-east of the school, with the rubble, ships, and fishing gear caught in it, and it flowed in near the foundations of the houses on the relative heights, and reached the swamp at the rear of the school grounds.
- In order not to worry the pupils, we directed the staff to keep them staying in the same place, where they could not watch the sea, and confirmed not to hand them over to the parents. In order to keep warm against the cold, the teachers went into the buildings as the aftershocks decreased, and brought out blankets and the children's coats. They wrapped themselves up in them, in groups of a few, also using the blankets which the city employees and the neighbors delivered to us. We made use of the restrooms of the swimming pool.
- Around thirty minutes after the tsunami, as the aftershocks decreased, some of the parents asked us until when we would refuse to hand over their children, or why we refused it even though we had done emergency hand-over drills, so we tried to convince them by telling the information of continual tsunamis from the radio, and that the school was the safest place since it was the highest in the region. We thanked them greatly, however, because we were able to notice that we had to determine how long we would keep the pupils, as it was becoming dark. Though the school was designated as a refugee shelter, blankets and provisions were not stocked, and lifelines were out of order, so we would have to do without lights and heaters at night. We thought over when we should let children go home, checking the conditions of aftershocks and tsunamis.
- We decided to hand them over at 4:45 p.m., since there were few strong aftershocks, the tsunamis had subsided, and we had about thirty minutes before sunset. When we did so, we told them not to go near the sea, to evacuate to shelters when their home was in danger, and to stay at home temporarily until we contacted them, and made sure of every collection of the students. There were those whose parents could not come, so we kept them warm in the teachers' cars, and all the students went home by 5:50 p.m.
- Afterward, all the staff went to check the buildings, and to prepare for accepting the evacuees.
- Two families (one with an infant) evacuated to the school around 6:30 p.m., and we offered a classroom which we fixed as one of the shelters.
- After nightfall, there was ash falling in the north-west, and the sky got red like a sunset glow.
- The area was isolated because Ishihama (around Karakuwa Elementary School), Yado, Tadakoshi, Shikaori were all stricken and the roads to the city center were cut off. Thirteen staff members stayed at school, and we knew that one member, who had gone to Minami-Sanriku City Office on business, evacuated to Shizugawa Junior High School, so we confirmed that all the school members were safe.
- All over the coastal parts of the school district was tsunamis had hit, since it was at the tip of Karakuwa Peninsula and surrounded by the sea on three sides. Sakihama and Kosaba suffered from huge damage, where all the houses were destroyed except for the foundations, and the coastlines were submerged due to the subsidence. There were many houses whose large portions were destroyed.



Around Kosaba Port, suffering from the most serious damage in the school district: the villages along the coast were completely destroyed by tsunami. A temporary embankment was built with the sandbags on the coastline, and the roads were raised.

2 Situations of pupils and teachers after disaster

- Number of students' families whose family members suffered from damage (six in total):

Mother is missing	1	Grandfather is missing	1
Grandmother/grand-aunt is dead	1	Grandmother is missing	1
Grandfather is dead	2		

- Number of students' families whose houses suffered from damage (seven in total):

House was completely destroyed:2	House was partly destroyed:2	House was inundated above the floor level:1	Roof tiles were destroyed:2
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- Number of staff's families whose family members suffer from damage (one in total):

Mother/aunt is dead	1
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3 Immediate Post-Disaster Responses, and the School's Role

1 Response to the evacuees

- Two families evacuated to the school, one of which was with an infant. We offered the first-grade classroom as a shelter, but all the lifelines didn't work, except for water, which was retained in the elevated water tank. We offered them the electric radiant heater, the only heater we had due to the blackout, and blankets. We supplied them with the snacks we had for a planned party with the locals, and rice balls the local staff brought for us, and we got emergency rations from Nakai City Hall from the lunch on the 12th.
- The evacuated families went back to home in the evening of the 13th and in the afternoon of the 16th, respectively.

2 Water supply support

- On March 14, the school was designated as the regional waterworks by Kesennuma City, so the staff started to take turns supplying water by a water wagon twice a day, around from 8:00 a.m. and 3:00 p.m., to the local residences with the amount limitation (originally two liters).
- On March 21, a city office staffer was assigned, and we continued our support by assisting him.
- On March 26, the waterworks got back in use, but we continued the support until April 4 so as to provide drinking water.

3 Receipt of the relief goods

- Around 1:00 p.m. on March 15, a helicopter of the American armed forces flew in and supplied us with 29 boxes with 24 bottles of water. They asked us what else they could offer, so we requested the continual support.
- We waited for their coming back with the H mark as the heliport on the school ground and making a list of the things we lacked. They came three times in total with water, sports drinks, energy drinks, instant noodles, and clothes.
- We delivered the relief supplies to the Karakuwa Branch of Kesennuma City Office.

4 Providing information

- We had difficulties getting information since we could not use cellphones as well as fixed phones and TVs, so we tried to provide information by putting up newspapers and notes from the city on the walls of the entrance and windows of the classrooms.

4 Engagements Aimed at School Reopening

- On March 12, we decided to notify the parents that we would temporarily close the school for the reasons as follows: (1) The entire school district was damaged and we could not get information on its condition. (2) Security was worsening. (3) The school was dysfunctional as a school. (4) The children would be in danger on the way to school. (5) We had evacuees in the school. (6) We needed to avoid the confusion of the parents.
- We visited the places of evacuation and the assembly halls with all other teachers, meeting and counting the pupils and informing them of the school closing, since we found it dangerous for the teachers to visit each students' house. We asked the PTA members of the area to contact all the families, and also got consent from the regional officials to use the halls to contact them.
- From March 14, we started to visit around the shelters regularly in order to get to know the children's situations and care for them. At the same time, we went around the school district several times, modifying the designated ways to school, so as to make it easier for the pupils to come to school safely.
- On March 16, we decided to hold a term completion ceremony and the graduation ceremony on March 24, and the party for the resigning teachers on March 27, after we made sure of the safety of all the students, got consent from the parents, and confirmed the safety of the routes to school. We used PCs to make the notices and invitations, but we had to do it in the daytime because we only had a teacher's private car as a power source.
- On March 17, we distributed the invitation letters to each hall.
- On March 24, 88 students (one student evacuated out of the prefecture) attended the completion ceremony, and all of the nine six-graders attended the graduation ceremony.
- As the City Board of Education and the Prefectural Board of Education had instructed us to carry out the personnel transfers as scheduled, we started the procedures, and also informed parents of the party.
- On March 31, a big generator was installed and the electricity was resumed.
- On April 5, we instructed the teachers to visit the houses of each student on April 6 and 7, in order to know their situation in more detail, in preparation for the term opening ceremony.
- On April 6, the electricity resumed.
- On April 7, an aftershock caused a blackout, but electricity resumed again on April 8.
- On April 8, we directed to fix the day of the pupils' coming back to school, after the lifelines resumed, the safety of the routes was confirmed, and we had heard reports of the home visits. The decision was made for students to return on April 14, so that the students could make preparations, and a mass emailing was made to parents.
- On April 14, we asked the teachers to see and check how the children were doing. They went back home in groups, with teachers accompanying and telling them how to go home safely. We spent a week preparing for the term opening ceremony and entrance ceremony.
- On April 19, "A Conference to Restart School Lunches" was held, and we shared the situation of each school and fixed the policies toward resumption of the lunches. As a result, though the situations were different from school to school and there should be differences in menus accordingly, our school was able to restart school lunch with simple menus from April 25, the day when the terms started, and after May 2, with usual menus. Under the situation when there were difficulties getting goods and supplies, the fact that we could start the classes with school lunches reassured us. We thank the City Board of Education, other related organizations, and the staff at the kitchens.
- On April 21, we held the first term opening ceremony, with all the students except two, who could not come due to their families' situation.
- After the ceremony, we tried to carry out usual education plans. The curriculum did not get back to normal, however, until just before the second term started, because we compensated the time we lost due to the delay of the term opening by shortening the summer holidays by eight days.

5 School and Local Community Cooperation

After the earthquake happened, communications were cut off and we lacked the gasoline to go to the center of the city. Our school was dysfunctional as a shelter without lifelines like electricity and a heating system. Under such circumstances, we found the cooperation and mutual aid with the locals were really important. It would be proper to say that we got support from them rather than cooperation.

1 Cooperation with the assembly centers

- On the day of the earthquake, people of Nakai region, where the school is located, offered us blankets so that the evacuees could use them, since we had no reserves in the school.
- The assembly centers of each region worked as the places of evacuation, and they were run by the chairpersons of the neighborhood councils. The thing we felt reassuring and thankful the most was that people there gave the children conscientious protection. They also let us use the centers to contact the children and know their situations immediately, so that we were able to restart the school without any big confusion or problems.



The temporary housing in the schoolyard, with about twenty households: some families of our students are included. One third of the schoolyard remained thanks to the efforts of the locals.

2 Cooperation with the city hall

- Nakai City Hall was the main place of evacuation for the people of the Kosaba region, which got the worst damage in the school district. They managed the shelter properly and promptly, by protecting the refugees, distributing relief supplies, and running soup kitchens for the local residents, in the chaos after the earthquake. In addition, they offered us food, and great care for the children who lost their houses until they finally moved into the temporary housing.

3 Cooperation with the public offices

- A car patrol by the local fire defense team and Karakuwa Police Station was quite assuring because we had no lights at night and many people felt unsafe. The red lights were the symbol of safety.
- The gasoline, information, and relief goods which Karakuwa Branch of Kesenuma City Office supplied us with were really helpful since we had difficulties contacting the center of the city.
- It was when we held the athletic meet that we strongly felt the warmth and kindness of the locals. Building the temporary housing in the school grounds was determined, and the athletic meet, which we already started preparing for, was almost going to be cancelled. Thanks to the help of the locals, however, it was able to take place under a drizzle. Moreover, by virtue of the kindness of the neighbors, who volunteered to offer their lands around the grounds as the parking lots accompanying the temporary housings, one third of the schoolyard remained. Whenever I hear the word “Oraho-no-gakkou,” our school in Tohoku dialect, by which they described the school, I thanked them for their courtesy, and admired the past principals and teachers, who have built the close relationships with them.

6 Issues and Prospects

There are many problems to solve, with difficulties to overcome, in relation to the restoration of the whole region. We have to try to solve the problems gradually from now on in the future.

1 Making the school peaceful

- To reconstruct the school facilities and go back to the normal school life.
- To care for the students mentally.

2 Restoration of the region and family life

- The children's family lives are not stable with the students who lost their houses and come to school from temporary housing, and seven times more students who need protection due to their parents being out of work/
- The restoration of the region is needed since the improvement of the pupils' environment depends on it.

3 Cheered up by the pupils' smiles and vigor

- When we look back on these ten months, the biggest difference from before the earthquake is clearly that there are more students with calm smiles and who work on their activities earnestly. We are convinced that seeing our students doing their best is a true sign that our school is recovering its original vitality and spirit, and that their smiles are the cheering on to the region from the school toward the recovery.

Aiming at Revived and Reinforced Post-Disaster Educational Activities

KUMAGAI Ryoichi, Principal

1 Pre-Disaster School Overview

Our school district is located on the furthest northern tip of the prefecture bordering Iwate, is split into three administrative districts (Tadakoshi, Tate, and Osawa), and comprises about half the area of the former Karakuwacho. As for topography, steep cliffs plunge into the sea and the coastline is rich with the variety of the Sanriku Coast's partially submerged river valleys (rias). Hirota Bay stretches below the eastern side of the school building, while on the western side is a deep forest. It's an area with superior views, rich with nature where antelopes and wild rabbits sometimes make an appearance. In December 2010, the Kawakura Highway—part of the Sanriku Expressway—opened, the amount of traffic increased, and the dangers for kids on their way to school also increased.

Of the region's inhabitants many households work in the fishing industry, so about a quarter of the parents/guardians are engaged in a related profession. Once many of them were pursuing deep-sea fishing, but that is no longer the case; along with the diversification of types of work, the amount of families with dual incomes is reaching two-thirds. There are many households that leave education of the children up to the mother and grandparents. The area is situated on the border of the prefecture, so the sphere of daily life extends beyond Kesenuma to the city of Rikuzentakata.

Our school is small-scale, with a total of 67 students and 13 staff members. We aim to cultivate "robust and healthy children who are eager to learn and kind-hearted." To that end we propose the image of a child who is compassionate ("kindness"), who will progress in his/her studies ("intelligence"), and who will train his/her mind and body ("strength"). We regard hands-on experiences in society and nature, as well as community learning establishments and the effective application of local talent, with importance, and we put student-led education activities into practice on a daily basis. Our school has won the Japan Standard Education Award, as well as the Youth Fire Defense Club Fire Defense Agency Chief Award. We've also been commended as a School with Healthy Teeth for many years.

The local residents take a strong interest in children's education and are not sparing with regards to their support for the school.



The coast near the school - The rocks in this area are marble, so it's called The Marble Coast.

2 Immediate Post-Disaster Situation

Immediately after the earthquake began, everyone was directed to a primary refuge location by the assistant principal without delay. When the shaking didn't stop, they were directed to a secondary location. The first graders were already about to go home and were passing in front of the school building, so I and two health teachers, while doing everything we could to keep the children safe, made sure that all the other students and staff reached the secondary shelter. Some of the children in the shelter were panicking, so I asked the health teachers to take care of them. Before long, parents and guardians began arriving in cars to pick up their kids, so I instructed staff to facilitate parking.

Although there were some parents/guardians who wished to return home, I had to take into consideration the following facts: that this was a bigger scale earthquake than others we had experienced up to this point, that the ocean offshore we could see from the schoolyard did not appear normal, that a large tsunami warning was in effect, and that I heard local residents saying that a tsunami was coming. Thus, I asked that both children and their parents/guardians remain at school. The parents and guardians seemed to understand my concern and not a single person brought forth an objection. As time went on, several parents/guardians left to check on the safety of their homes and families and then came back to school. It was at this time we learned that most of the houses in Tadakoshi and Osawa had been swept away. The damage report for our school, as well our students and staff, is as follows:

School Building - Cracks in the foundation in the vicinity of the eastern hatch. The maximum width was a few centimeters. Max length east-west was five meters. Max length north-south was seven meters.

Schoolyard - Fissures in the eastern side. Max width of one centimeter. Length between five and eight meters. West side stone retaining wall, several stones broken/fallen.

Children - 21 had their houses completely destroyed, seven had large-scale destruction, two had partial destruction. Total of 30.

Staff - Three had their houses completely destroyed, two had large scale destruction. Total of five.

Community - 80% of the houses in Osawa and 90% of the houses in Tadakoshi were completely or partially destroyed. In Tate there were five or six buildings that were completely or partially destroyed.

3 Immediate Post-Disaster Responses, and the School's Role

The Day of the Earthquake (March 11)

The staff, as well as all the children and the parents and guardians who had arrived, were to spend the night on school grounds, so staff members set about pitching tents. We were unable to make contact with the superintendent who was away on business in Shizugawa. (Upon their return March 18th we were able to confirm the safety of all staff members.)

Between aftershocks we retrieved heaters, blankets, burners, pots, gas cylinders, dishes, medicine, etc., from the school building. Additionally, there was some boiled rice and miso soup offered voluntarily by parents/guardians whose homes had not been damaged. All staff and parents/guardians voluntarily distributed food, so we provided a meal to all evacuees present, including students and staff.

Everyone spent the night in their respective cars. Children whose parents/guardians had not come took advantage of a friend's guardian's car.

Because of the blackout due to the aftershocks, there was no news coming in via TV, etc., so I instructed the assistant principal, curriculum coordinator, and another staff member to try to gather information to the extent possible. As a result, the following items were reported:

- It was not possible to confirm how much the area had been damaged because they could not see in the darkness of the blackout.
- They were unable to go to Shishiori because a huge fire had broken out.

Day 2 (March 12)

I went to Koharagi Junior High (the junior high and retirement home are designated as shelters, but the elementary school is not) on business, was told that drinking water had been delivered, and felt it must be the case that our school did not receive water because we are not designated as a shelter.

In order to grasp the condition of the school district, I had the assistant principal, curriculum coordinator, and another staff member investigate. I also approved the requests of some parents/guardians to check on the state of their homes. During this time the children stayed at school. To prepare for long-term shelter life, I instructed staff members to set up a simple toilet and secure firewood and kindling, so the curriculum coordinator and another staff member ended up doing that. The parents/guardians who had gone to check on their homes returned. Those who managed to avoid being hit went home with their children. From what parents/guardians had to say upon their return, the condition of the area became gradually clearer:

- Among our students' families there were no casualties; everyone was safe.
- Almost all the houses in Osawa and Tadakoshi had been swept away—the landscape was drastically changed.
- The neighborhood of Tate, which is in our school district, had relatively fewer damaged houses.

The fact that despite the region's sustaining serious damage, none of the children's families had any casualties, was a blessing among curses. The junior high and Tate retirement home were being run as shelters primarily by the neighborhood council. The situation was such that we couldn't tell what would happen—we weren't sure how long our shelter lifestyle would continue. The school was not sparing in its support and loaned tents, sheets, gas cylinders, burners, plates, etc. Staff members also supported operations and participated in management.

We distributed food as we did the day before. When I think about it, we were eating two meals a day. Along with the now fewer parents and guardians, we spent a second night in our cars, warming ourselves in the tents.

Day 3 (March 13)

The evacuees decided to move to the designated refuge locations, Koharagi Junior High and Tate Retirement Home (both institutions just two or three minutes' walk away). Staff dismantled the tents, etc., in the schoolyard that had been used as headquarters up to now; the men went to the junior high and the women went to the retirement home where they supported shelter management. Finally a Self-Defense Forces helicopter came flying over and landed. They were here to collect information. After that, a helicopter came flying over, circled, and landed once I and several staff members gave the OK sign. This was a United States military helicopter. They gave us aid in the form of drinking water, food, etc., and we divided the food among the three districts. Since all the evacuees had moved to the junior

high or the retirement home, there was no longer anyone in the schoolyard, so we decided to use it as a provisional heliport and I directed the staff to draw a mark there. A short while later the Self-Defense Forces also flew over, leaving us relief supplies like food. The food was taken to the junior high school, but we decided to store various daily supplies at our school to make effective use of them. I instructed the staff members at the shelter to gather information from parents, guardians, and local residents about the extent of the damage to the children's houses and the safety of their families. From that, we drew up "Student Safety Cards."

Day 4 (March 14)

I instructed staff members to investigate the actual safety of students and their families, and the damage to their homes, based on the "Student Safety Cards." Two were in charge of Tadakoshi, and two others covered Tate and Osawa, respectively.

At the same time, staff members selected a shelter car to conduct an investigation into the status of damage to their homes. As for the retirement home, the men were lodging in the community center next door, while women and the elderly stayed in the home itself. Even under these conditions many children in the shelter could be seen running around energetically. Considering that some elderly people were in poor health, we decided to start a "day care" at the school.

The damage to the school building from the earthquake was not so bad, and to be prepared for subsequent aftershocks we kept in mind that we could shelter immediately in the gym. We set the daycare hours from 9 a.m. to 2 p.m.

Day 5 (March 15)

At disaster h.q.'s request, staff members carried out an investigation into things like family clinics and household medicine. They also worked on moving and organizing the relief supplies delivered by Self Defense Force and U.S. military helicopters, as well making inquiries into what supplies evacuees were hoping for, listing them and/or translating requests into English. Helicopters also came on the 16th: two from the U.S. military (relief supplies), and one from the Self-Defense Forces (relief supplies, medical team); one helicopter from the Self-Defense Forces also flew over on the 18th (8 drums of cooking oil).

Besides that, we designated the assistant principal's car as the emergency vehicle and allowed teaching staff to return home for an hour at a time in rotation. Furthermore, with an eye towards reopening the daycare and school, I instructed staff members to pick up the equipment that had been scattered and clean up.

4 Engagements Aimed at School Reopening

The opening of the "daycare," after seeing the way the children's life in the shelter was going, was a step towards reopening the school. Starting from the fifth day of the disaster, March 15th, we started cleaning up the school. On the 18th, a Board of Education representative in charge of facilities visited to investigate the damage to the school building. The outcome was that although there was some foundational damage, etc., we were told, "We don't have any issues with your re-opening of the school," so the assistant principal, affairs office manager, and I discussed amongst ourselves and set the reopen date as March 22nd. We also discussed the schedules for March 23rd and 24th. The outcome was as follows:

- 22nd: 9:30 Children come to school. Morning address - aftershock plan. Relief helicopter strategy. Radiation counter-measures lecture.
 - 10:00 Class guidance.
 - 11:00 Clean the whole school.
 - 12:00 Lunch (Pre-packaged bread from the U.S. military support helicopters, a little something sweet, a can of juice).
 - 13:00 Curricular studies (review, year-end wrap-up). 14:00 Go home.
- 23rd: 9:30 Children come to school. 9:40 Morning address.
 - 10:00 Curricular studies: making sure students know the content, review, year-end wrap-up.
 - 11:00 End of the year ceremony and graduation rehearsal.
 - 12:00 Lunch, same as the previous one
 - 13:00 Curricular studies, year-end wrap-up.
 - 13:45 Going home address. 14:00 Go home.
- 24th: 9:30 Children come to school. End of year ceremony.
 - 10:00 Graduation
 - 11:00 Lunch (snack)
 - 11:30 Go home *All three days, children will be accompanied to and from school by staff members.

March 22: The day we re-opened the school

At 9:30 a.m., 48 of the 67 students came to school accompanied by staff members according to district; 19 were absent. The reasons for the absences were, for example, difficulties securing transportation or not being able to make contact with people due to their hasty evacuation out of the school district. We had the kids go straight to the gym and conducted the morning address. Preceding the morning address we had a meeting to go over plans for this day and the

next, things that should be handled with caution, health check, evacuation locations, the trend of working over spring break, and the end of year/graduation ceremonies.

After that, we had class guidance (health check, what do to in the event of an aftershock, how to use the toilet, etc.), a big cleaning job, lunch, and curricular studies (year-end wrap-up). Children went home, accompanied by staff members, at 2 p.m.

During the health check we got the facts on the students' current evacuation locations, contract info, etc., and made a second draft of the Student Safety Cards.

March 23

In the same way as the previous day, children came to school accompanied by staff at 9:30 a.m. They worked on curricular studies (year-end wrap-up) and rehearsal for the end of school and graduation ceremonies, had lunch, and then did more curricular studies (year-end wrap-up). At 2:00 p.m. they left school accompanied by staff members.

March 24

We celebrated the end of the 2010 school year and graduation. We let those guests present in the shelter know via word of mouth that they were welcome to participate in the graduation ceremony. Several people did.

We passed out forms to gather information like whether people are looking to transfer schools, current evacuation location, and contact info. (They were collected on the 28th at the departure from office ceremony.)

March 28th

We held the departure from office ceremony at 9:30 a.m. A doctor from the Sapporo Hospital Bureau visited our school to take care of some kids experiencing trauma from the earthquake. Three children who were attending the daycare met with the doctor. We collected the hand-outs from the 24th and made (the third round of) Student Safety Cards.

April 1st

Because of the earthquake, two fourth graders transferred schools.

April 2nd

As a temporary measure until the power got restored, we installed a generator with the support of local businesses.

April 4th

Because the middle school was getting full, there was a request to transfer some relief supplies to our school's gym, so we let them use it. It was only during the day, but we were able to secure some power so staff members set about finishing up the work that had piled up since the previous school year, as well as preparing for the new year.

April 7th

The power was fully restored. Previously we'd only been able to use it during the day, so now staff members could put even more effort into preparing for the new school year. Additionally, phones came back online, so we were able to contact area schools and related institutions; however, there were still some areas where power had not been restored, so communication issues were not completely resolved.

April 8th

We posted a notice in the shelter that April 12th would be a school day, and each home room teacher passed out fliers to children's houses or evacuation locations while making sure the routes to school were safe and checking up on the area's condition.

April 12th *Construction of temporary housing began.

The children came to school. Since they hadn't been to school in a while, some kids could be seen rejoicing each other's safety. There were also some kids who seemed unsettled, perhaps as an effect of the earthquake. We held a ceremony to introduce new teachers at 8:30 a.m., and at 9:30 the children went home.

April 15th

We patrolled the school district mainly to confirm that routes to school were safe.

April 21st

We were relieved to see that, as opposed to the 12th, all the kids came to school happy and full of smiles.

8:30 Back to school ceremony	8:50 School activities	9:35 Everyone went home
9:55 Met with parents/guardians	10:30 Entrance ceremony	11:50 Saw everyone off as they went home.

5 School and Local Community Cooperation

Since before the earthquake our school has had comparatively good support systems from local talent, various related institutions, and parents/guardians whether for studies, all kinds of hands-on activities, or various events; we strive for cooperation with the community. From the time the earthquake occurred, school staff members were made

aware once more that “the school is a part of the community;” because each district’s assembly hall had been swept away, we opened the gym for the residents’ use, lent cooking utensils and dishes to the shelter, and so as a school we maintained a system of support for the community. Also, since the utility services were disrupted, people living in the school’s neighborhood distributed drinking water from their personal supply.

When the new semester started, temporary housing was quickly (even compared to the rest of the city) built in the schoolyard and residents of Ōsawa moved in. Because of this, our use of the schoolyard has become quite limited and this hinders physical education classes, but there is a silver lining: the exchange between children and residents is more lively, and by sharing feelings with each other, we’d like to deepen the community cooperation and exchanges with residents even further.

6 Issues and Prospects

During the earthquake Tadakoshi and Ōsawa were practically annihilated. Even so, the number of offshore fishing facilities is gradually increasing. Also, the residents of Ōsawa are hoping to relocate somewhere all together as a group, so we can start to see community moves towards restoration. However, it’s unclear when the temporary housing in the schoolyard will be removed, so even more originality and resourcefulness will be required of the people running the school. The maintenance and improvement of the students’ physical conditions is an issue that will probably take a lot of ingenuity to solve, but joint education with the community is limited to some extent, and it seems that it will be difficult to get back to the way things were before the disaster.

Furthermore, in the midst of planning to reexamine disaster preparedness using the lesson of our experiences this time, the number of children exhibiting regression to infancy decreased, but perhaps due to some earthquake related coverage and news over winter break, the number of kids exhibiting flashback-like symptoms increased, if only by a little. We need to find a way to conduct drills going forward that will not be a flashback trigger for the children; how to carry out evacuation drills while taking the children’s emotional state into account is a challenge. It can be said that we’ll need to devise a way to incorporate the story of this earthquake and the lessons we learned into children’s education in the future.

Next, something we feel is necessary, connected to the reexamination of disaster preparedness, is an evacuation manual and method for the schools to become community disaster bases. Also, related to the evacuation manual reexamination, we’d been having emergency drills where parents or guardians came to pick their kids up from school since before, but one of the main reasons there were no casualties among either students or parents/guardians in this earthquake was possibly that we had everyone remain at the school. Because of things like this, we need a manual, but since there may also be times where circumstances don’t proceed according to the manual, accurate, situation-appropriate judgment is required. It’s possible to imagine situations where a judgment call needs to be made when leaders are absent, so we need to consider that as well.

There are more than a few local residents who feel the school provides strength to the community. If in the future another situation occurs that requires evacuation, it will be necessary for school staff to deal with it. At the point a disaster requiring evacuation occurs, we become a facility that says, “This school is not a school, but a shelter,” and how that shelter will be managed is something we need to come to a consensus on with the community going forward.



Temporary housing was constructed in the schoolyard and the area we could use became less than 1/6th of what it was before, so the space we have for all-school activities is severely limited.



Before classes start the first-third graders and fourth-sixth graders switch off jump roping in either the schoolyard or the gym.

Aiming for Education That Protects Lives and Fosters Rich Hears and Minds

OSADA Katsuichi, Principal

1 Pre-Disaster School Overview

This school stands in the middle of the former Motoyoshi-cho (annexed with Kesennuma since September 2009), and is located in the corner of an urban area, 4 km distant from the mouth of Tsuya River (Pacific coast). This village used to center on agriculture and forestry, but now most of the parents both hold down jobs and are salaried workers. Most of them are a three-generation family, but even if it is a two-generation family, many children have their grandparents in the same district. The local community has a strong bond before the annexation, and various events have been held centering on local government. These years, the school has continuously been working on a traditional tree-planting activity at school, which highly considers the connection with the local area and joint activities, and also on ESD (education of sustainability) as a fundamental of education, by taking in the local industry and culture, and tying it in with academic subjects and general learning classes.

As for emergency training education, we have been holding earthquake evacuation drills every June, and fire-response evacuation drills every November. Moreover, as for this education, assuming an earthquake off the coast of Miyagi Prefecture, we have been holding lectures and welcoming guest speakers, etc., from related organizations (for example, a lecture about earthquakes by Professor Fumihiko Imamura from Tohoku University, June 2010).

Children	1 st grade	2 nd	3 rd	4 th	5 th	6 th	Special	Total
	31	30	45	44	44	39	4	237
Staff	Principal	Vice-principal	Teacher	School nurse	lecturer	Office clerk	City employee	Total
	1	1	14	1	3	1	4	25

* including temporary workers

2 Immediate Post-Disaster Situation

1 School

A magnitude 6 earthquake occurred on March 11th at 14:46 (2:46 p.m.), and it was so big that some windows broke and doors came out of their grooves. The bookshelves in the library fell and books were all over. Things from the lockers also flew out and made a mess. In the schoolyard, it was hard for the parents, who had just come to pick up their lower grade children, to stand still. In terms of the school building itself, thanks to the earthquake-resistant construction we had performed four years ago, we only got a couple of cracks. However, the west side of our wooden building, where we had classes such as language, art, and BOP (base of playing; place for children to play after school), subsided, and the bathroom became no longer usable. Because of the landslide that occurred near the east/west side stairs and the center of the building, the roofing tile slipped out of place, causing rain leakage and damage to the building. Yet the gym was also earthquake-resistant as was the reinforced center building, so there was hardly any damage. The lights went out throughout the school, the heating system stopped, and the water supply and the telephone lines were soon cut off. Later on, radioactive substances were detected in places such as the pool, so the children were not able to clean the pool as they used to do every year.

2 Children

Right after the earthquake, we led all the children to the primary evacuation site (the furthest place from the school: the South arboretum). However, because the phone/cell phone lines were not working, we were not able to confirm the safety of the four children who were absent, nor that of the four who had left school early that



200cars kept watching children and local people

day. The snow was flurrying when we started evacuating, but after a few tens of minutes, it became a blizzard, falling on the children and staff. There were a few children crying from fear and coldness. It was almost evening, and we could not take the children back to the classrooms or the gym, where the window glass was all over and where it was cold from power failure without blankets and heating. There was no choice but to take them to the evacuation site. Since the tsunami warning alarm did not go off throughout the night and it was too dangerous to have the parents pick up their children, we decided to keep them for the night. We had children from the mountain side and the coast side, but it was not fair enough to let only the mountain side children go home, so we kept all of the children. However, it seems that some children went back home without our confirmation.

Four of our children had their parents killed because of the tsunami.

3 Staffs

Right after the earthquake, the staff (the clerical employee was on a business trip) led the children to the evacuation site, following the evacuation manual. The parents and local people let us use their cars they drove to the evacuation site, so we split the children into grades and classes, and they spent their night in the warm heated cars. Meanwhile, for food distribution, bathrooms, night watch, and safety confirmation of the children in the cars, the staff were awake, taking turns to take a nap. The situation of damage of the staff is as follows.

< Prefectural expense staff. April 1st, 2011 >

- ① Whole house washed away ...5
- ② First floor of house washed away ... 2
- ③ Relation to the second degree being killed or lost ...2
- ④ Car washed away ...3

< Municipal expense staff. April 1st, 2011 >

- ① House washed away ...2
- ② Car washed away ...1

On a day like this, especially the staff whose houses or families were on the coast must have felt fretfulness and uneasiness, not being able to confirm their safety. After giving the children to their parents the next morning, the staff headed home, except for the ones who were still able to work or who could not go home. The president, vice president and those staff stayed four nights at the public hall and dealt with emergencies or confirmation of children whose fate was still unknown.

4 Local area

The tsunami caused by the earthquake surged to part of the town area, which was 4 km from the coast. In total, 30% of the area was destructively damaged, including residences and fishing ports. The lifelines in the area, such as the huge supermarket, city hospital, sewage plant, filtration plant, electric/telephone wiring, highways, and waterworks were hardly working. Although ensuring food was our biggest concern because the electricity/water supply was cut off, boiled rice was distributed on the night of the disaster, thanks to the community system of Kyu-Motoyoshi (the former Motoyoshi town). In the area, an emergency center was set up, and this was used by the evacuees for a reasonable period.

3 Immediate Post-Disaster Responses, and the School's Role

1 Ensuring the safety of evacuated children and local people

About 30 minutes after the disaster, a blizzard befell the children in the school field. Since we could not bring back the children to the damaged school building, we were thinking of a way to keep the children warm, and decided to ask the parents and families who came to pick up their children if they could let us use their cars. We explained the situation to the first ten car owners who arrived. They readily agreed to the idea, and we had the children evacuate in the cars, in order from the first graders on. We asked the local people as well, who came to evacuate one by one, and had around 200 cars park in our school field, allowing the children and the local people to take shelter in the cars before sunset. When we were making a name list the next day, we found out that the evacuees in the cars were approximately 700 people, including the children. Rice balls were distributed from the community center in the area, and presented in the order of children (from the first graders), evacuees (children→elderly→mature persons→youth), and staff. At night, the temperature went below zero, and the fallen snow from the blizzard was frozen. From the evening, the toilets outside froze and became out of order. Therefore, one of the staff set up the girl's room on a hill that was step higher than the field, using a plastic sheet, and set up the boy's room by using the gutter of the south arboretum. We had to make holes in the frozen ground with shovels and picks. The staff kept watch in turns in the coldness under zero degrees. We patrolled around every 1-2 hours to check if no engines of the cars had stopped, or if anyone was sick in

the cars.

The next day, in the early morning, we received distribution food from the same community center, and handed it out in the same way as at dinner on the previous day. In terms of giving back the children to their parents or guardians, we made a name list for it, and noted clearly if they went back directly to their parents or if someone else picked them up. We also made a name/address list for the local people just in case. Some parents were not able to pick up their children on the next day of the disaster, so in that case we led the children to the city hall where there was heating, lights and food.

2 Safety confirmation of children

We were able to confirm the safety of the children who were at school that day, but it was almost impossible to make sure about the four who were absent and the four who had left school early, as the streets were blocked and the phone lines were cut off. However, we considered the children's safety the most important priority, and there was not a moment to waste. We learned that there was a wireless apparatus in the fire engine that arrived before sunset, and confirmed the safety of the absent four by 11 p.m. Confirmation was by the principal hearing the children's or their parent's voice, and thus did not allow any hearsay or assumptions. Therefore, it took us four days to finish confirming all eight children. Since we did not have a car, we went around to other evacuation sites and city halls by bicycle, where information tended to gather. We also collected information about the children using the school entrance as a message board.

3 Restart of the school building

After March 12th, the staff who were able to come to school worked on throughout March to enable the school to start again and to be quake-proof. The water service, electricity, drainage system, and the phone lines were gradually coming back, so we dealt with those as well. For example, until we got tap water, we drank water from water bottles or from the tank the Self-Defense Forces gave us. In addition, until the drain worked, we used the pool water mixed with chlorine and put paper in a plastic bag, instead of flushing it.

4 Role of the school and staff

Many evacuees spent their first and second nights in their cars. Late night and early morning school staffers watched over evacuees, and led them to the toilets. School staff also helped in the distribution of boiled rice the night of the disaster and the following morning, and assisted city employees and firefighters in making a name list of evacuees. Most of the evacuees at the school had left by noon of the second day for various evacuation sites and community centers. However, with the continuous tsunami warnings and aftershocks, the school on its high ground continued to serve as an evacuation site. At night, several people came to evacuate in their cars. When support materials began to arrive at the school, as students were on temporary school vacation, and were themselves evacuees, these materials were delivered to needy persons and to homes with children. Also, for some time, the school grounds and the portion in back of the gymnasium was used as water-supply sites by the Self-Defense Forces. From May, temporary housing began to be constructed, and so we were able to use only around half of the school grounds.

5 Confirmation of the staff's movement

After the disaster, we had to make sure of the safety and the disaster situation of the families of the staff, who went back home after handing back the children to their parents. There were a lot of difficulties, such as having the staff ride the same car to come/go back to school since we were short of gasoline, and contacting them in a situation of having no phone lines. In the daytime, the principle went to the staff's houses and heard about their current situation. In the afternoon, I went back to school and consulted with the other staff at school about the confirmation of children's safety and our measures for the future. A staffer who was supposed to come that day had his house completely collapsed, his car washed away, the roads blocked, and came to school on March 17th, Thursday. The ones who went back home but had their houses washed out, gradually started to be able to reach the school, and I informed them about the schedule for the coming days. Since we had no phone lines, I posted the contents of instructions on the board of the city hall and at other places in the area.

4 Engagements Aimed at School Reopening

1 Until Graduation

Although Graduation and the completion ceremony were postponed because of the earthquake, we managed to hold each of them on Wednesday, March 23rd and on Thursday, March 24th. At the time of the two ceremonies, we were out of electricity and water, and the sewage was not working. In my address, I noted that there were children who lost their parents, that I myself was saved on the very night of the disaster, and that we had the mission for Japan's and Kesenuma's rehabilitation.

Moreover, after the disaster, we posted a paper at the community center of each district and tried to give out the school information to the area and the parents.

2 April 1 (Friday) General Postings, Before and After

It was very hard to transmit the unofficial announcements or the official ones that said to hold two posts. In order to convey these to the staff who could not be accessed via telecommunication, the principal directly went to the evacuation sites or their houses, or borrowed the staff's cell phones that began to work slightly. Moreover, because there was an official announcement for people to hold two posts, the operation for the new year, from April 1, did not work so well. The day when all the school staff of 2011 met each other was on April 12.

3 Until the opening ceremony and the entrance ceremony

The most important thing was to consider about the education curriculum for 2012 after the disaster. Centered on our dean of academic affairs, we held operating committee and extraordinary staff meetings when needed, and succeeded to shift the schedule and destination of school events or to reexamine the hours of classes by the first staff meeting on April 14. The staff members holding two posts gradually started to actually teach at our school, and despite the fact that the water supply and drainage were still not working, we managed to hold the opening ceremony, having all the children attending. In terms of drinking water, the Tokyo Fire Department and the Department of Water Works of Ichinoseki poured water into our water tank for a considerable period from April 16. However, we did not use it as drinking water. We were also careful concerning sanitation by putting antiseptic solution bottles, which were given as one of the aids, at the entrance of bathrooms and the gym. We held our entrance ceremony on the next day. Until the opening ceremony, we made a round of calls at our students' homes (in order to grasp their home situations and for guidance), and held learning meetings in each district.

4 Changes in curriculum and activities

The big changes in the curriculum

- Field Day in June (one-month delay)
- Postponement of pool classes (could not clean the pool and started the class after a one-month delay)
- Postponement of school trip and changed destination from Fukushima to Yamagata
- Fifth grade sleepover study trip in September (two-week delay) and destination change from Takada to Hanayama.
- Feld trip in September (two-week delay) and change of destination.
- Postponement on-site studying for "general class" which focuses on Tsuyagawa.
(From 1st semester to the 2nd semester)
- Postponement of study presentation (three-week delay)
- Postponement of school marathon race (three-week delay), etc.

Although there were many changes, as for accomplishing "education that embodies our educational goal and centers on the six points that are based on ESD," we tried to avoid any changes as much as possible, thanks to the understanding of the staff. Moreover, the children's party being in the center, we sent a thank-you message to schools and parties who sent a lot of support and messages from all over the world and Japan, confirmed our determination to stack up against the whole disaster, and to face the rehabilitation, and conveyed our appreciation to all who supported us. When musicians and sport players visited our school, we had the children to "recognize that we are supported by many people and the thankfulness," and to relieve their stress by doing exercises. For the children who specially had a problem, we invited counselors from Fukushima. There were some staff who received counseling as well. We will call the 2nd semester, "the rehabilitation semester," aiming to get the children involved in studying and learning more than before.

5 Disaster prevention measures and review of manual

As our major education precept, being a school having experienced a major disaster, we claim "the need of crisis management against unexpected situations or disasters, of continuous review of the manual, and of drills." Since we were considering the Chile earthquake-tsunami as a standard, the extent of the earthquake we experienced was completely beyond expectation. We had designated the the gym as the 2nd evacuation site, which was at the same

height as the 1st one, but changed it to a place which used to be the field of the Tsuya practical arts school, and which is 20 m higher than our field (when the disaster happened, our school was not designated as a site, but many local people came to evacuate).

Therefore we started to review the manual, and have held a evacuation drill every 11th day of the month as the “Tsuya Disaster Response Day,” wearing emergency hoods. From now on, it is necessary to systematize the methods for contacting absent students and those who have school early, and to enrich counseling and advice about how to save the children’s lives when they meet with a disaster at home or in the local area.

5 School and Local Community Cooperation

1 Right after the disaster

On the very night and in the next morning, food was distributed to all the children and evacuees by the communities from our neighboring areas. It was beyond expectation, so we really appreciated it. We were also thankful for the local people, including parents, who lent us their cars.

We told how proud we were for our area to the children at the ceremony. A lot of aids, such as water, were sent to our school from other districts and prefectures. We distributed these to our local communities.

2 Mingling with the people in temporary housing

The construction of temporary housing started at May and people began to move in June. On the south gate, our calligraphy staff wrote “kizuna, kyousei” (bonds and living together), and “Thank you for your kindness from the Tsuya Elementary School.” Being a message to the people of the temporary housing, these words were also written to make the children have thoughtfulness. Four families with children moved in so we held several exchange activities. The tree planting committee played a main role in planting the “Moyoyoshi Morning Glories” and handing out green curtains to each family. We also invited them to our field trip and study presentations, and always informed them whenever artists or celebrities came to our school. The people from the temporary housing have also been helping us in the preparation of restarting school. We have made communication with them by periodically handing them out our weekly letter from the principal and our monthly school letter.

3 Children at the evacuation sites

From right after the disaster, most of the children lived at the community hall in each area for a while. The people in charge treated them as “children of the area” and kept their daily rhythm intact, including meals, sleep and study. I have heard that there was a community hall that made the cleaning, dish washing, and drawing of water the children’s duties, as members of the community. I have also heard that some children at another place performed their rope skipping skills to the old to cheer them up.

4 Thankfulness from the school

To thank all the people in the area for guiding and taking care of the children and giving us aid, the executives visited around by bicycle. Also, the school advisory council has been giving out thank-you letters to almost 30 communities who gave us generosity.

6 Issues and Prospects

1 Many issues for the school

- ① The local people assume the school is an evacuation site, whether or not it is appointed as one. What we need is a school system and supply stocks so that we can deal with such situations, and also training for it.
- ② In terms of handing back children to their parents, it is hard to make decisions and it may become a life-matter situation because of the shortage of information. We needed a standard for the hand-back among local elementary and junior high schools.
- ③ We need hardware for receiving/sending information. The wireless apparatus in the fire engine we had by chance was very useful that day, but we should always have those. According to the later news, Twitter seemed to have been useful throughout this disaster. From now on, we are going to merge the e-mail magazine from the school and one from the Municipal Board of Education, and spread Earthquake Early Warnings to the parents as immediately as possible.
- ④ It has been broadcasted that this was the biggest earthquake in 1m000 years, but even in this 50 years, we have had tsunamis once every 10-20 years in Tohoku, and several hundreds of people have died each time. We should not be excessively conscious, but we need to make a risk management system that faces up to reality, and to review the manual. Naturally, this includes safety measures when the children are at home, in addition to the measures for local cooperation. Considering the height of this tsunami, it is necessary to grasp the sea level of the school's evacuation sites.
- ⑤ In each school, the system of calling up the staff should be re-inspected, and should be flexible for all kind of disasters. Safety management and a security system for the staff on their way to the school should also be prepared.
- ⑦ The staff are working as if nothing had happened, but compared to before the disaster, they must have been hurt inside. Being in an administrative position, I would like to work on their emotional care even more. I think their economic loads for rebuilding their houses or raising their children should be considered.
- ⑧ Against the children who lived in the temporary housing or who moved in after suffering from the disaster, behavior based on prejudice was seen. In schools like ours, where a few students moved in each grades, we should be careful in student guidance.
- ⑨ Some staff are feeling the sense of burden because of the difficulty of deal with all the support materials. As a managerial position and considering the hearts of our supporters, I should coach them not to forget to have a view as an educator. As a reference of how to prepare themselves for disasters, I feel the necessity of having them know about what was going on in other schools those days. We were in the same disaster-stricken area, but we should look around at others, since there should be a lot to learn from them.
- ⑩ I have heard that in the damaged areas, bigger schools went to support the smaller ones. It is a good idea for schools to tie-up for future disasters. Moreover, through the medium of the Municipal Board of Education, I propose cooperation with schools in other prefectures in West Japan.
- ⑪ As the municipal school president committee, it is necessary for us to make suggestions for future rehabilitation from educational aspects.

2 Our future view

There were so many, many sacrifices, and I do not know what to say. I think that it is our major mission as educators to develop minds concerned with “saving lives,” and that can “realize and be thankful for people’s kindnesses, and that are willing to offer help to others when they are in difficulty.” I hope that the children will live looking ahead, cultivating that heart. It would be our honor if it were recognized on this occasion, how much the school education means to the society, and how much the staff has ceaselessly made efforts.

Magome Elementary School

The Renewal/Revival Processes Centered on the Mental and Emotional Care of Students and Educators

KIMURA Reiko, Principal

1 Pre-Disaster School Overview

- ① Number of pupils: 28
- ② Number of teachers: 8
- ③ Actual situation of pupils, a local area and a school
 - The whole 28 pupils mainly led by the 6th grade are active considerably and spiritedly. They like exercises in general, are bright, cheerful, pure, and obedient, and have strong fellow feelings. They also try to clean or work hard. Besides, the pupils have made efforts to accomplish their goals independently, and have explained their feelings and thoughts among themselves as a group.
 - Local residents have a deep interest in school education, and cooperate with school events extensively. All the houses in the school district became a (regular or semi) member of the PTA and support the school. This area suffered only slight damage from the Great East Japan Earthquake directly because it is in the inland, but there are quite a few residents who lost their relatives or jobs by the tsunami.
 - The actual situation of school is that combined classes has been introduced since 1998, and three-year combined classes had been kept up completely from six years ago, but combined classes of the lower grades were done away with from 2007.

2 Immediate Post-Disaster Situation

- ① Situation of pupils

The principal gave an evacuation order and made pupils of 3rd to 6th grades go to the first evacuate site (the south portion of the schoolground). The pupils of 1st and 2nd grades who were on their way home after a field trip took refuge at the playground of Magome kindergarten, led by their two classroom teachers. We confirmed the safety of all 28 pupils. Though a Major Tsunami Warning was announced, we were not worried about the tsunami because this school is in the inland area, so we made pupils stay at the school ground. The methods of contact with their parents from the school were cut off, but each parent came for their children voluntarily. The whole 28 pupils were handed over completely to their parents safely at 3:45 p.m.
- ② Disaster situation of teachers

One teacher took a sick leave on that day, and he seemed to come back to home near the Shidu River after going to hospital. However, we could not confirm his safety because the methods of contact were cut off.
- ③ Disaster situation of the school

Blackout. Unserviceable fixed phone, IP phone, the Earthquake Warning Data Terminals, and Security Protection Lines, suspension of water-supply
- ④ Disaster situation of the local area

Partially destroyed houses. The area did not suffer damage from tsunami because it is in the inland area.
Blackout. Unserviceable fixed phones, IP phones, the Earthquake Warning Data Terminals, and the Security Protection Lines, suspension of water-supply

3 Immediate Post-Disaster Responses, and the School's Role

- ① Support for evacuees

Nobody evacuated to the school because there were no damages from tsunami, and houses were not damaged badly in his area. The local residents gathered at the Forestry Center, and they distributed emergency food from 4 p.m. on that day. Private electric generators and propane gas tanks were equipped in the Forestry Center, so they were

brought over to provide water and food.

② Ties between the City Board of Education and the Principals' Association

● Friday, March 11

The principal directed the vice-principal to report to the City Board of Education, and other staff to go home. The vice-principal went to the city area via Okago, Fujisawa-town, and Senma and Murone, Ichinoseki-city, Iwate Prefecture, and proceeded to the City Hall avoiding debris by tsunami. He reported the situation of damage at the school and the area and safety of all pupils to the City Board of Education.

● Tuesday, March 15

The head and the deputy associate director of the School Education Division visited this school to inspect the site and gather information.

● Wednesday, March 16

The principal visited elementary schools, junior high schools, and high schools within the district of Tuya Junior High School and the Motoyoshi Education Center to exchange information.

An extraordinary staff meeting was held to consider a plan for this month. The principal directed that documents be made and delivered to parents.

● Thursday, March 17

School visit of two persons who are in charge of the Facilities Section of the City Board of Education (to confirm the status of damage). School visit of the manager of the Motoyoshi Education Center (to gather information).

③ Self-Defense Forces

The Ground Self-Defense Force visited the school to check cantonments on Monday, March 14.

④ Fire Fighting

Tuesday, March 15

The fire brigade: school visit of three inhabitant supporters of the area, and movement of the fireproof library.

4 Engagements Aimed at School Reopening

1 Measures until Opening Ceremony and Entrance Ceremony of the School for Academic Year 2011

① March 11 to 31, 2011

● Saturday, March 12

The principal directed the vice-principal to tell the parents of pupils that there were no classes temporarily until they were notified by the school. Then, the vice-principal told the parents and local residents of an emergency school closure through the president of the Society for Promotion.

● Thursday, March 17

The teachers visited pupils' homes to distribute a document with information about school day, and measures after this. In their visits, the teacher confirmed the status of health of the pupils etc.

● Tuesday, March 22

A school day, with 4 absences among 28 pupils.

● Wednesday, March 23

Graduation Ceremony and Completion Ceremony for Academic Year 2010 (with 4 absences among 28 pupils).

● Monday, March 28

Farewell Ceremony for transferring teachers (with 8 teachers on duty and 2 absences among 28 pupils).

② April 1 to 22, 2011

● Starting of student acceptance procedures due to influence of the earthquake.

● The principal, through meetings, directed that documents be made including notices about the plans until reopening the school, and to confirm the situation, and visit pupils' homes to support their learning.

● Emergency home visits (to check pupils' health, confirmation the damage status, and make inspection of the routes to school).

● Implementation of home visits (a round of inspection of the area and support for learning).

● April 22

Opening Ceremony of the first semester for Academic Year 2011 (2nd to 6th grades, with 2 absences among 25 pupils)

A girl in 4th grade and a boy in 5th grade – the students were flown to each of their mother's homes in China for safety.

● April 22

Entrance Ceremony for Academic Year 2011 (1st to 6th grades, with 2 absences among 34 pupils)

A girl in 4th grade and a boy in 5th grade – the students were flow to each of their mother’s homes in China for safety.
☆ Water service was restored.

2 Policy for Prevention of Posttraumatic Stress Disorder (PTSD) among Students

① A regular teacher suffered

This school was less damaged than other schools materially, but one regular teacher who took a sick leave on that day was lost because of tsunami, when he was in his house near the Shidu River after going to a hospital. He was identified by DNA profiling on September 8. The principal had an emergency meeting on September 9 to summarize the process of finding the body, and also distributed documents to their parents with the summary. Many pupils attended his farewell with their parents on Sunday, November 20.

We worried that the missing of him for a long term produced PTSD of the pupils, so we tried to care about pupils’ mental problems in cooperation with relevant organizations, and we also supported pupils by offering an additional teacher of Educational Reconstruction. In addition, all pupils and teachers or staff folded one thousands paper cranes for his peaceful rest, and marched with the paper cranes in the School Sports Festival.

② We offered an additional teacher of Educational Reconstruction

● The reason for offering

The deceased teacher, a 43-year-old man. was a core person of the school because he was in charge of 5th and 6th grades, a chief researcher, and the head of physical education in academic year 2010. The pupils currently in 4th to 6th grades were instructed by the teacher directly as a classroom teacher or an instructor in their club activities. Meanwhile, the pupils in the other grades also were instructed by him in many scenes such as events, so all pupils were shocked deeply because the teacher who had leadership and was adored by the pupils was lost by the earthquake.

The school was small-scale, with only 34 pupils (as of May 2011), so it is expected that this case will impact the minds and bodies the pupils strongly for a long term. Substitution for leaves of absence was provided for teachers, but this has hindered the learning activities and mental care of the pupils.

● How the additional teacher of Educational Reconstruction will be used

Combined classes are introduced in 3rd to 6th grades. The regular teacher guides pupils carefully according to individuals, dividing Japanese classes (excluding calligraphy) between 3rd -4th grades and 5th -6th grades with the additional teacher. The total classes have 10 hours. Besides, those teachers also have mathematics classes in the same way as Japanese language, and the total classes have 10 hours. The additional teacher is in charge of science classes (type of A and B) in 3rd -4th grades and 5th -6th grades. The aim is to promote students in each subject, especially since an additional teacher who is not a classroom teacher can spare time for preparing for experimentation and researching teaching materials. The total classes have 3 hours.

Thanks to the above-mentioned, the teachers can more concentrate on caring about and speaking to each pupil and deal promptly with pupils’ mental changes or anxieties. At the same time, it is also expected that pupils will be able to acquire certain academic skills and achievements.

The additional teacher of Educational Reconstruction from an other area was assigned to this school on June 22.

● Achievement

Pupils have increased their motivation to learn, and this has led to improvements in their academic achievement. The teachers concentrate on Japanese and mathematics in each grade, thereby providing the combined classes and spare time to research science-teaching materials so that specialty subjects can be taught. Both the classroom teacher and the additional teacher increase time to have multifaceted care for and calling on the pupils, guiding them to cooperate with other individuals, and to deal quickly with any mental problems and anxieties that may arise.

The attitude towards voluntary work of the additional teacher who came from another district to reconstruct education in the damaged area has reformed our thinking, and raised the morale of other teachers.

③ The use and a regular placement of a school counselor

We tried to care about the mental problems of pupils, teachers, and parents with advice from school counselors from other prefectures, and with the regular placement of counselors whose expenses were paid by our Prefecture.

Many school counselors from other prefectures came to the school to care about mental health after the Great East Japan Earthquake on 3.11. The emergency posting of school counselors played an important role under a situation where pupils, parents, and teachers started a new school term with anxiety. Though counseling time was limited for the first and second time, we planned a schedule for not only pupils who wanted to take counsel but also all teachers even if they only had an interview for a short time. The teachers who were finding it hard to deal with pupils seemed to release emotional stress.

However, the visit of school counselors from other prefectures was not regular or continuous, so we applied for the placement of a regular school counselor whose expenses would be paid by our Prefecture to the Prefectural Board Education, and the school counselor has come every month. The counselor has held classes for the relaxation of pupils, lectures for all teachers to teach points of care about pupils, and speeches about emotional treatment of children in a disaster for PTA members. Now, a counselor supported by prefectural expense comes to school every month, and we are trying to care for the emotional problems of the pupils and teachers while receiving the counselor’s advice.

The pupils and teachers have huge different thoughts or feelings because they are facing various situations due to the unprecedented earthquake. Besides, teachers were also victims of the disaster, so their measures were limited under the only school system. We feel the importance of the validity of coordination with outside, and of the role of our school nurse as coordinator.

5 School and Local Community Cooperation

- ① There were no evacuees to the school because this area did not suffer from the tsunami, and damage of houses were not so bad. The regional inhabitants gathered at the Forestry Center immediately after the earthquake and distributed emergency food from 4 p.m. Private electric generators and propane gas tanks were equipped in the Forestry Center, so they were brought to provide water and food. We did not participate in providing emergency food as a school. However, it seems support activities were promptly performed in this emergency, especially since always the community manages systematically thanks to a close ties in the area.
- ② We did not expect the restoration of the water supply by the time of the Opening Ceremony of the school term, so the most important thing was securing water. The president of the Society for Promotion offered to bring water with a water truck if the water supply was not restored. Moreover, the president of that company told us he welcomed any type of consultations if we faced other challenges, so we were encouraged by his words very much. The school received generous cooperation and support by residents of the area. We deeply feel the importance of forging ties in times of non-emergency.
- ③ We announced notices, such as emergency closure of the school, to parents and local residents via the president of the Society for Promotion. It seems that we were able to timely offer these notices, especially because transmission routes for notices of school information were already securely in place.

6 Issues and Prospects

- ① How the school should hand the pupils over to their parents, etc., in a situation where all communication is cut off.
In the case of this school, the parents picked their children up, and we completed handing over them safely by 3:45 p.m. However, other schools experienced otherwise: parents could not come to the school to pick up a child for some days, and there were many cases where pupils suffered from the disaster after schools handed them to parents, or where it was difficult to confirm the safety of children not at school.
We reflected that our ordinary system of handing over pupils did not work, so we had a drill to hand over them after we reconsidered the manual for emergency evacuation and revised it to make it more effective. However, we constantly need to reexamine the manual.
- ② The school is of course a core of local disaster prevention, but the proper placement of municipal officers and division of roles with the school side is necessary.
- ③ We must know how to manage when the school is used as a shelter.
We must always endeavor to manage voluntarily with use of the local community without separation of persons who receive, and persons who give, assistance. Additionally, we must implement education that encourages children to actively join in the work at the shelter.
- ④ We must be concerned about each teacher's degree of mental and physical fatigue, security of their working styles, and allowances for special work (like overtime).
There were many schools which arranged for teachers there to deal with problems for 24 hours a day. In addition, many teachers found it difficult to go to a school due to lack of gas in their vehicles. The municipality needs to announce the working mode of municipal officers, including the treatment of overtime working in schools.
- ⑤ We must prepare education regarding disaster prevention for various scenarios.
- ⑥ The schools must try to enlighten pupils and parents about consciousness to save themselves, by advising them on making decisions on their own.
This is the promise of disaster prevention among a family.
- ⑦ This school was designated as a shelter, but in fact the Forestry Center was used as a shelter or the center of local activity. We participate in general meetings about local disaster prevention. The municipality distributes stock foods or goods to the school to keep them in a gymnasium, but it is necessary to construct a system of delivery of stocks to the Forestry Center, and to use such stocks in cooperation with local community in an emergency.

To Advance Forward from the Great Eastern Japan Earthquake

SUGAWARA Teruo, Principal

1 Pre-Disaster School Overview

The school district is located in the southern part of old Motoyosih-cho that has a ria coastline peculiar to the Sanriku Coast, and the highway of Japan connecting Aoba-ku and Kesennuma line, Japanese regional railway running in the western part. In the east, Tatsugane Mountain, one of the Kitakami-mountain groups, towers over the school district. Meanwhile, in the northern part, there is Tsuyagawa, so called Koizumi, with its source in Murone-machi, Ichinoseki City, Iwate Prefecture. It moistens the regional arable lands, and flowing into Akasaki shore, which is famous for its beautiful scenery. In this river, the propagation of salmon has been conducted.

On March 30, 1955, Koizumi-mura became Motoyoshi-cho as a result of the merger with Tsuya-machi and Ouya-mura. Then on September 1, 2009, Kesennuma merged with Motoyoshi-cho. Currently, this school district is regionalized into seven regions and three non-regional districts in Hama-ku located in the southern area, where the fishery industry was central, Machi-ku in the central area with lots of stores, and Zai-ku in the northwestern area where agriculture is central.

The school district suffered catastrophic damage from The Great East Japan Earthquake that occurred on March 11, 2011. Today on April 1, 2012, a total of eighty-six students – forty-four boys and forty-two girls—are enrolled at Koizumi elementary school. There are six classes in each grade. Twelve teachers work for the school.

2 Immediate Post-Disaster Situation

On, March 11, Friday, at 2:55 p.m., the school principle ordered people of the town to evacuate their homes and gathered children in the temporary evacuees' shelter. Then, a great tsunami warning was issued. Lots of parents came to pick their children up, but the school did not allow them to go back but told them to wait in the evacuees' shelter together with their children. Next, people in the temporarily evacuees' shelter were moved to Koizumi elementary school. Finally people fled to the empty lot which was higher than Koizumi elementary school. Twelve (12) students in the first and second grade who had got out of the school were missing and feared dead. The same applied to the administration clerks who had gone to a consolidated government building in Minamisanriku (a town in Motoyoshi District Miyagi) on business. The school principal instructed school staff to confirm the safety of the people. After consultation with the school principal of the Koizumi junior high school, the principal ordered school staff to see if the gym of the junior high school was available. At 4:30 p.m., the evacuees' shelter was opened and children were moved there under the firm judgment. Lots of disaster victims (approximately 530 people) flocked to that shelter.

Electricity and the water were cut off. Phones and computers were also out of service.

Situation of the school

The roof tiles came loose. Expansion joints (an assembly designed to safely absorb the heat-induced expansion and contraction of various construction materials) fell. Lots of fissures in the wall were found (science classroom, shop classroom, library, and homemaking classroom). The fire-resistant safe in the principal's office was moved. The entrance door of the room for the meeting warped and became impossible to open and close. Three of the fluorescent lights in the music room were broken. Two of the windows in the library were broken. Lights in the restroom on the second floor were broken. An exterior wall of the gym had three vertical cracks. Mortar, lime and cement used in building for holding bricks and stones together, was partly peeled off. Small pool concrete was partly peeled. The



drain ditch for the pool was washed away. Fissures in a part of the ground were found. Fissures in the eastern road of the parking area were found. The concrete of the emergency stairs behind the school building was caved in and partly peeled. One spot of the slope up to the school could not be used due to driftwood and a landslide. Four spots of the floor beds were peeled.

The principle ordered school staff to prepare for the establishment of the shelter. On March 11, Friday, at 5:30 p.m. the principal ordered teachers and the vice-principal to transport necessities from the school to the shelter. For instance, mattresses, blankets, and medicines to the infirmary, mattresses and safety mats in the gym to cover the floor, writing instruments and papers in the faculty room, and gas stove stands, dishes, pots, chopsticks and spices in the homemaking class room. These were transported to the shelter. After that, all staff were ordered to stay in the shelter to take care of the disaster victims. At this point, administration clerks who had gone to a consolidated government building in Minamisanriku were still missing and feared dead. There had been a series of 8.8 magnitude aftershocks. On March 12, Saturday, at 8:00 a.m. the safety of the 12 students in the first and second grade who had been missing and feared dead was confirmed. This meant that 98 students—all students of the Koizumi elementary school—were safe. At 10:00 a.m., school staff continued to help in preparing for the meals and clearing the table. On March 14, Monday, at 8:00 a.m., the principal announced that because of the shortage of the oil, it was okay for people to move between the shelter and their homes based on their own judgment. At 4:00 p.m., the principal instructed to draw, on the following day, an SOS sign with coal for helicopters on the ground of the Koizumi elementary school. Ten school staff remained in the shelter to receive disaster victims. On March 15, Tuesday, at 8:00 a.m., the school principal instructed homeroom teachers to confirm the whereabouts of the students and report it to the vice-principal. In addition, the principal instructed school staff to take children to stay in the gym to the Koizumi elementary school every day from 10:00 a.m. to 11:00 a.m., to provide an opportunity for reading, exercising, playing, and cleaning up the possessions for the time being. At 10:00 a.m., students came to the classrooms and cleaned up the staff and classrooms. Then, each of them borrowed two books from the library and went back to the shelter. The situation of damage inside and outside of the school was reported on by the vice-principal. Also a report of the investigation about the whereabouts was conveyed. Through the report, it was clarified that 40 children in the gym of the Koizumi junior high school and 58 children in their houses, relatives' houses, Minato ward assembly hall, Hamanasunooka and Shunhoen were safe. At 4:00 p.m., in the staff meeting, the principle informed the school staff to hold the graduation ceremony and the completion ceremony on March 24, Thursday, and told them to let the children and parents know this fact. Nine school staff stayed in the shelter to take care of the disaster victims. On March 18, Friday, four school staff stayed in the shelter to take care of the disaster victims. On March 19, four school staff went to the shelter, and one of four stayed there to take care of the disaster victims. On March 21, Monday, two school staff stayed in the shelter to take care of the disaster victims. On March 22, Tuesday, the principal gave permission to the school staff to stay in their houses according to their remaining quantity of the gasoline as part of their work hereafter. In addition, school staffs were ordered to go to Koizumi elementary school but not the shelter. Four school staff stayed in the shelter and took care of the disaster victims. On March 23, Wednesday, four school staffs stayed the shelter and took care of the disaster victims. On March 24, Thursday, all school staff attended and conducted the preparation for the graduation ceremony and the completion ceremony. Altogether, 84 students of 98, the whole population of students in the Koizumi elementary school, attended the ceremony. Lots of parents also



came to the school. The vice-principal reported the completion of the all ceremonies.

On March 25, Friday, the principal ordered the vice-principal to examine the children's whereabouts and damage situation and report it to the Honyosi education center. The result was 26 people in own homes, 38 people in the shelter, 34 people in the relatives' house, 47 people in completely-destroyed homes, seven in partially-destroyed homes, and the rate of the people who suffered from the disaster was 72.9 percent.

On March 28, Monday, liquefied petroleum gas was restored.

On March 31, Thursday, 3 children who were visited by the disaster moved out to Ichinoseki City, Tomeshi City, and Tokyo.

On April 5, Tuesday, electricity was restored in the staff room, principal's office, and office room owing to the installment of the power generator.

On April 6, Wednesday, under the investigation into the systems and facilities for the resumption of the school, the principal ordered the vice-principal to request the arrangement for the school bus for the safety of the commuting route to the school. Because the Koizumi O-hashii (bridge) was destroyed by the tsunami, it was necessary to take new route. Then, the principal ordered the vice-principal to make the list of the goods which were given to the shelter and, to give that list to the head office of the shelter.

On April 8, Friday, the electricity of the school was fully restored.

On April 14, Thursday, the school repaired the roof tiles. Judging from the results of the safety inspection on the slope to school, the vice-principal reported to the principal that the slope was out of commission due to the rubble. In response, the principal ordered the vice-principal to ask the city education committee for the removal of the rubble.

On April 19, Tuesday, the school repaired the window glass of the computer room on the second floor.

On April 20, Wednesday, four temporary bathrooms were installed on the corner of the ground.

On April 21, Thursday, the opening ceremony for the first semester in 2011 was held. 73 students in 74 from the second grade students to the sixth grade students attended. Because landline phones were unavailable, a satellite cell phone was installed in the staff room.

On April 22, Friday, the entrance ceremony for 2012 was held. All new students (11) attended the ceremony.

On April 25, Monday, a cell phone for the school was installed in the staff room. A light lunch was started.

On April 27, Wednesday, child who was visited by the earthquake moved out to Kushiro City.

On May 6, Friday, piped water was restored and people became capable of having potable water.

On May 11, Wednesday, lunch was fully provided by the school.

On June 9, Thursday, a computer with temporary access to the Internet was installed in the staff room.

On July 5 Tuesday, in lieu of the Koizumi O-hashii, a temporary bridge was opened and school staff were allowed to avoid taking the roundabout.

On July 15, Friday, landline phones and fax lines were restored. Also, a security system became available.

On July 22, Friday, rubble in the drain of the pool was fully taken away and the repair was completed.



3 Immediate Post-Disaster Responses, and the School's Role

I evacuated to the high ground right after the earthquake. However, soon it began to snow and the temperature dropped. It became quite cold. I talked with the principal of the junior high school to suggest the use of the junior high school gym as a shelter to give protection against the cold. I send the school staff to confirm the damage situation of the junior high school gym and the safety. After a thorough investigation, I moved the evacuee's shelter to the junior high school gym. Though it became shelter, at first, there was nothing. There were no foods, no water, and no blankets. Of course, there was no way to contact with the city education committee, so I instructed staffs to transport necessities for the shelter, which the school possessed at that time at my own discretion. The things which were transported from the school had been used until the closure of the shelter. Then, in the terms of the management of the shelter, a group formed voluntarily by the public hall staff, kindergarten staff, elementary school staff, junior high school staff, and citizens took care of the meals in the shelter. However, it was assumed that it would take a long time to restore and concerned people who had helped with the shelter would be exhausted. From that point of view, on March 13, I formed a management organization with district delegates, participants from the city office, and delegates of the participants of the school. In addition, I also decided to establish a medical team and special assault team, and introduce the schedule for the cooking which every evacuee had a duty to do. Public officers supported these people to run things smoothly. On March 16, reorganization of the management organization was conducted which led the management go on smoothly. The delegate meetings were held twice a day, in the morning and evening. Thus, these efforts helped to reduce the burden the office workers had to bear right after the earthquake.

4 Engagements Aimed at School Reopening

We determined to hold the graduation ceremony and completion ceremony on March 24, 2011. The ceremony schedule was posted on the notice board at every evacuee's shelter. In addition to this, all families were informed through parents who knew their whereabouts.

Preparation for the ceremony

- Drinking water and lunch breads for all evacuees were prepared by evacuation headquarters.
- Water for washing hands was carried by each person in bottles.
- Temporary restrooms were set up on the school ground.

Schoolteachers and staff were expected to hold heartwarming graduation and completion ceremonies. All attendants wore daily clothes due to the lack of everything. The principal of the Koizumi Elementary School also attended wearing the suit worn at the earthquake.

The address of the principal was as follows;

I am so glad to have all of members of Koizumi Elementary School including students, teachers, and staff here and also present the diplomas to all of you 14 days after the greatest earthquake in Japanese history, on a scale that occurs only once in a thousand years. However, I am so sad that some of your families and the members of this area were lost.

I hope these ceremonies will be the first step to rebuild our society from this tragedy. The dreams and wishes expressed just now by the students will be a strong encouragement to go forward step by step. When you confront big difficulties, I believe that the most important thing is to cooperate with each other and overcome them. I also hope you will be a person who can contribute to the society, our hometown Koizumi area, Miyagi Prefecture, and Japan. I am sure that you can do it.

Students who evacuated to the north across the river could not go to the school on foot due to the loss of the Koizumi Bridge at the beginning of the school year 2011. In order to solve this problem, a school bus was requested to the education committee with the cooperation of the junior high school principal.

Preparation for the ceremony

- The water and temporary restrooms had to be secured for the school, since the water supply system was destroyed and was not working normally. Water for restrooms was supplied by the Japanese Self-Defense Forces, and temporary restrooms were set up (or prepared) by the Education Committee.
- The drinking water was also supplied from water wagon by the Japanese Self-Defense Forces.
- In order to avoid food poisoning and viral infection, antiseptic solution was prepared since sufficient water was not supplied.

5 School and Local Community Cooperation

When we first decided to establish an evacuee's shelter after the great earthquake, there was nothing in Koizumi Junior High School. Therefore, things in the other elementary schools and junior high schools, which were regarded useful were carried to Koizumi Junior High School. In addition to this, staffs of the kindergartens, elementary schools, junior high schools, and community center and volunteers such as president of the resident's association worked on organizing a shelter administration group. We did what we could do by ourselves. Also, all the work was divided up so as to lighten the burden on each person. For instance, in terms of the meal duty, we made groups according to districts, and took turn. School staff supported this division to work smoothly. Lots of people in the shelter participated in the ceremonial events such as graduation ceremony and entrance ceremony. It seemed that most of them were moved to tears and encouraged by seeing children working hard. In preparation for resumption of school, an atmosphere where sufferers voluntarily cooperate was gradually fostered.

6 Issues and Prospects

In this disaster, people could not use electrical devices such as telephones for a long time. A situation lasted where we could not make contacts with Education Committee and children's parents. In this situation, the principal had to make decision in various aspects. The principal keenly realized the weight of the responsibility which occurred when he made each decision. Also, the principal felt the significance of confirmation of contact means in case of emergency. We have to take into consideration the use of email as a way to contact children's parents.

Review of the manual for correspondence in case of emergency and emergency drills practice plan in earthquake and Tsunami was conducted. The secondary evacuation site was changed to higher ground. According to the manual for the correspondence in case of emergency, school staff are required to gather in the school. However, in this

disaster, it was anticipated that the great tsunami would attack that school. Many people questioned if it is right choice to follow the manual even in this situation. The first priority should be the confirmation of one's own safety. We have to examine the contents of the manual for emergency time.

Combined kindergarten elementary and junior high school emergency drills

In this case, thanks to the periodical evacuation drills, we could evacuate without any problems. However, we still have to be concerned as to whether handing over children to their parents in a disaster, as we had practiced in the evacuation drills, is right decision or not. From this experience, now many people believe that handing over should not be done while the great tsunami warning, tsunami warning, and tsunami advisory is issued. Rather they think that it is necessary to establish the rule for when to not hand over children but let children evacuate to the schools or secondary evacuee's shelter. This is the challenge we realized from this disaster.

Thank you for reading. Lastly we want to introduce a student's essay which explains the situation right after the great earthquake.

Strong gratitude to everyone who saved me

M sixth grade

On March, 11, at 2:26 p.m., suddenly the earth rumbling occurred and the school building greatly swayed from side to side. It was just after the physical education class was started and my friend was about to kick a ball. I heard president's loud voice from the staff room. He shouted, "Eun to the center of the school ground!" I desperately ran toward the center. It gradually became hard to stand, and after some moments, other students evacuated from the school building running hard. Most students were worried about their parents' safety and sobbing bitterly. Teacher who has seen those students said a little firmly, "I can understand your feelings, but the first thing you should do now is to think about your safety. Please calm down. It's safe." Many families and members of the area, one after another, gathered at the school, which was on a higher ground.

As many people were crying and all confused, the principal who had a radio said, "A great tsunami warning has been issued. It is possible that a great tsunami will attack our school." I questioned what he said, and just prayed.

It was when people were trying to ride in their families' or school staffs' car to protect themselves from sudden snow. Someone's mother who went to the city to see the situation shouted with a loud voice, "It is a crisis! Our city has been destroyed. There is nothing." After I heard that fact, I was all confused and I could not figure out what was happening. Then, I went to see the situation of the city nervously and found that the great tsunami had attacked the city.

Soon the Tsunami came to just under our Koizumi Elementary School. My friend who has lived in a house around the school was crying. I could say nothing to that friend. It was too hard for me to imagine how hard it is to see own house drifting away by the tsunami, and I did not know what to say. I was told by my teacher to move with my younger sister, so I evacuated to a higher place in the mountain with her. After I evacuated to the safe place, I could understand how ferocious the great tsunami is by seeing the city from mountain. I could not help shivering from a fear I'd never experienced before. I almost panicked when I thought about my family and house, but because there were my sister and friends next to me, I kept saying "It's safe here," to myself, again and again, to calm down. It became cold due to the snow. Then, I hate to admire it but the white snow started to look like angels. Because it seemed that the snow would not stop, we used a blue sheet to protect ourselves from snow. I was filled with fear while struggling with the blue sheet falling due to the weight of the snow. I questioned myself many times, if my family was safe, and if I would be able to see everyone's warm smiles again. I was moved to tears by indescribable loneliness.

When the waves were subsiding, I went to the junior high school gym. In the gym, people were divided into groups according to the districts where they lived. I had no appetite because I could not help thinking about what if my parents were not safe, and I had to live with only my sister. How can we make a living? This idea had struck me. To avoid this, I asked the situation of my house to the fire officer who works in Kurauchi district where I live. After a moment, the fire officer answered with hesitation. "I am afraid nothing remains. Your house has been destroyed by the tsunami." Since I never imagined that the tsunami had reached my house, I could say nothing after speaking the words, "That can't be true." Whenever I tried to sleep, the words the fire officer spoke appeared in my head. I could not sleep all over the night.

After dawn broke, the grandparents and father and brother's safety was confirmed, but mother and H, an aunt who lives with us, were still missing. Yet, around noon, I heard a voice calling me and my sister's names from the entrance. I run to the entrance in a hurry. Then, there were father and mother standing soaking wet from the waist down. At first, I confirmed Aunt H's safety. And after I found that she is now in Shunpoen and doing her job, I pressed myself against my father and mother in relief. My mother said, "We must have worried you. I am really sorry." In reply, all I could answer fighting back a flood of tears was, "It was nothing but I am so glad that you all are alive."

My grandfather told me what had happened around him. He first went to the Kesenuma to move the ship to the offing. However, when he was about to touch the ship, the strong waves like a mountain came. He abandoned the car and ran through the narrow spaces between the houses. Then, he held tight to fences. At that time, the water reached to his breast and under the breast was sinking in the water. In this way, he was saved, though he saw many people being swept up by the tsunami.

On the other hand, when the earthquake occurred, father was on the way to a meeting, so he was headed to the harbor. However, after the great tsunami occurred, he changed his mind to evacuate to city hall. Later when he saw the picture of the disaster on the Internet, he found that his car was the last one that was able to get away from the waves. In the picture, the rest of the cars following after my father's car were engulfed by the tsunami.

Ohya Elementary School

Aiming at the Revival of Our School and Local Area Filled with the Smiles of Our Children

FUJIMURA Toshimi, Principal

1 Pre-Disaster School Overview

1 Basic Information of the School District

Our school is located in the south of Kesennuma. It is facing the Pacific Ocean on the east side and surrounded by mountains and abundant nature on the west side. We put great effort into traffic safety instruction because the traffic is very heavy on National Route 45 and Yamanote-kan agricultural road.

People from the local community are cooperative with the education at school and PTA activities. We conduct activities with a local flavor.

There are a kindergarten, junior high school, community center, and welfare institution in our neighborhood. We promote local education activities while collaborating with local people.



The Area around Ohya Elementary School and Ohya Junior High School

2 The Number of Students and Faculty

Grade	1	2	3	4	5	6	Special	Total
Students	35	34	43	34	34	28	5	213
Classes	2	1	2	1	1	1	3	11

Principal	Assistant Principal	Teachers	Instructor	Teacher for special school	Secretary	Municipal employee	Total
1	1	11	2	1	1	1	18

3 The Special Features of our Education

Our school is surrounded by ocean, mountains, rivers, and farms. We have conducted environmental education and welfare education activities with the community, like a kindergarten, junior high school, public hall, and welfare institution. Our school and Ohya Junior high school joined ESD (Education for Sustainable Development) that Kesennuma has promoted, and we were certified as a UNESCO school after merging with Kesennuma-city on September 1, 2009. We put great effort into community study as school research which emphasizes the cooperation with a junior high school and our local community, which is conducted under the support of a local coordinator while utilizing the environmental conservation activities called "Hachidori Plan" Ohya Junior High School has conducted.

On November 25, 2011, the 43rd national convention of environmental educational research in Miyagi was held at our school and Ohya Junior High School. More than 300 elementary schools and junior high schools in Japan joined that convention and introduced their environmental joint classes there.

2 Immediate Post-Disaster Situation

1 The Conditions of Ohya Elementary School and The School District after the Earthquake

A magnitude 9.0 earthquake occurred off Miyagi coast at 2:46 p.m., on March 11, 2011. The heating boilers we had used stopped urgently and ventilators fell out at each classroom. An elevated water tank burst and flooded the third-floor hallway. Books in the library fell out of shelves and many fluorescent lights were broken, but fortunately windows of the school building weren't broken at all.

A large tsunami hit our school at about 3:20 p.m. That tsunami rushed toward our school located on a hill from

Ohya coast, where is only 400 meters away from the school field, and destroyed all the buildings from the coast to the school. Another tsunami from Ohya-kaigan station hit our school's gym while attacking the rice field, the Ohya community welfare center, the pool at the school, and Ohya kindergarten. Even though the kindergarten next to our school was badly damaged, it was a miracle that the gym was hardly flooded because the school gate was closed.

Furthermore another tsunami rushed from Takine river, which is on the west side of the school, toward the school field through the west gate of the school while it destroyed a co-op Ohya store, the Miyagi fisheries cooperative branch office, and any other building. The tsunami which hit our school from three directions destroyed dozens of cars, electric appliances such as refrigerators, broken houses, and furniture. A heap of rubble gathered at the large school field we had used with Ohya junior high school. The tsunami which rushed from the north side of the school destroyed entrances of PE storage houses next to the school building, and then it arrived at the school's east entrance and filled the first-floor hallway with dirt.

2 The Conditions of Students and Faculty after the Earthquake

Many students from first to third grades stayed in their classrooms when the earthquake occurred at 2:46 p.m., though all the classes had been over at 2:30 p.m. Fourth graders and above were still taking their classes then.

The information about the damage of 213 students is the following.

One student was missing. Three students' fathers were missing or dead. 67 students (37%) lost their houses because of tsunami. 43 students (20%) live in temporary houses and 11 students (5%) live in apartment houses or stay with their acquaintances or relatives today on January 1, 2012.

The information about the damage of 17 school staffers is the following.

Seven staff lost their house because of tsunami or fire. One staff lost his/her family home because of tsunami. One staff's house was partially destroyed because of the earthquake. All the staff and their families were safe but it was a big damage that nine staffers' houses were destroyed.



The Condition of School Ground on March 12



The Temporary Houses at School Ground

3 Immediate Post-Disaster Responses, and the School's Role

1 How to Cope with the Earthquake on March 11, 2011

- At about 2:50 p.m., we teachers evacuated students to the school field. At the same time a male teacher went to rescue four first graders who had been waiting for a bus.
- At 2:55 p.m., we evacuated students who stayed at the school field to the second refuge area on a hill in front of the community center because we had a Large Tsunami alert.
- At 2:56 p.m., we returned 12 students to their parents who picked their children up.
- At 3:00 p.m., we got information from an assistant principal that a tsunami was approaching the school and then we evacuated students to the top of a hill, where is higher than the second refuge area.
- At 3:20 p.m., a large tsunami hit our school.
- At 4:10 p.m., we staff had a meeting at the refuge area, and I told the other staff to confirm the safety of students and to check on the damage of the school. At that time, we couldn't confirm the safety of the students who had gone back to their home before the earthquake, and those who had left the school with their parents before tsunami hit the school.
- At 4:40 p.m., we opened a shelter at the gym of Ohya junior high school, and I told an assistant principal to prepare necessary supplies for a refuge life.
- At 5:00 p.m., six students who couldn't contact their parents evacuated to the gym with teachers. About 250 people evacuated there.
- At 7:00 p.m., nine staff including the school principal and assistant principal stayed at the gym and dealt with

students and other people there. It started to snow, and it was so cold inside the gym. Also the staffs monitored the condition of sea in turns because large aftershocks had continued and we had gotten information about another tsunami.

2 The Role School Fulfilled

We had conducted an emergency drill in case of earthquakes with kindergarten and junior high school so we could evacuate to the initial shelter and the second shelter when a big earthquake occurred on March 11, 2011. Our emergency drill paid off enough. However our elementary school's buildings, the junior high school buildings, and our school's gym couldn't be available for shelters because a large tsunami (18.5 meters) we didn't expected hit the school buildings. Two principals of Ohya Elementary school and Ohya Junior high school and a director of the community center held a discussion. And they decided to use Ohya Junior high school's gym for a shelter because it was located on a hill higher than the school field.

On that day, about 250 people, including staffs from kindergarten, elementary school, and junior high school, elders and staffs who had been in a community welfare center, and the neighborhood, evacuated to the gym. All our school's staff except those who took a holiday prepared to make a shelter at the gym.

Major preparations we school staff conducted are the following.

- We could barely walk into our school buildings even though there was rubble at the school field and went to classrooms to take protections against cold.
- We brought heaters to the gym.
- We brought heating oil to the gym.
- We brought extension cords to the gym.
- We brought some blankets to the gym from a nurse's office.
- We brought a first-aid kit to the gym from a nurse's office.
- We brought dry-cell batteries and CD players to the gym.

We sat on chairs that were prepared for the scheduled graduation ceremony, and spent the night by five or six heaters with using an electricity generator brought from the community center. The staffs the of elementary school and junior high school put long chairs under the stage, and gave people some directions with a handheld microphone. We also made a list of the regional people and dealt with people who were searching for missing people. We announced the information from the radio to the people in the gym all the time. We got rice balls from Kamigou community late at night for the first time. People stayed three days at the junior high school's gym. That shelter was closed on the afternoon of March 14. People who had stayed there moved to Ohya community center, Senou temple, Seiryō temple, and the regional social center.

After the shelter (the junior high school's gym) was closed, we made a front office in my principal's room and collected information about the safety of students and school staff. Since then, some staff started to stay in the principal's room. We started to clean up that room first because we had walked through the first-floor hallway which was muddy.



Destruction State of Ohya Kaigan Station



186 Temporary Houses at School Ground

4 Engagements Aimed at School Reopening

1 Activities after the earthquake (March 11, 2011-April 21, 2011)

It was the highest priority to confirm the safety of the students. Homeroom teachers visited students' houses and refuge areas because we needed to check on their families' safety and the conditions of their houses. When teachers couldn't see them, they collected the information about students from their neighborhood and friends.

While homeroom teachers confirmed the safety of their students, all the staff were working for the restoration of our school. First, we had to remove dirt from the first floor. For a week, the gym had been a temporary place to put victims who had passed away. After the mortuary had been moved to another place, all the staff cleaned the gym. Four or five days after the earthquake, Self Defense Forces from Nagasaki came to our school and started to remove the rubble. It was getting hard to get gasoline for private cars at that time.

Since the earthquake, we had closed the school for five days. We restarted the school on March 22, 2011, and held the graduation ceremony in the multipurpose room on March 23 and March 24. Ohya Kindergarten (which was located on the northern side of our school) also held a graduation ceremony in the same room on March 25 because the kindergarten building wasn't available because of the earthquake. Since then, our three rooms in the first floor became the kindergarten's rooms.

Two weeks after the earthquake, the aid delivery came to our school. The new assistant principal visited us by car and brought us many living necessities and warm clothes. On March 26, the electricity supply was restored.

The water pipe had exploded because of the earthquake and no water trucks came. It was very hard to get water everyday. After the aid delivery started to come to our school, we could get drinkable water. Water supply was restored on May 14.

2 Activities to make children to have their hopes (April 21, 2011-July 26, 2011)

On April 21, we held an opening ceremony (two weeks later than usual). On April 22, we held an entrance ceremony. And all the new students joined the ceremony. Then the school board of Kesenuma determined to pick up students who lived far away by school bus, for their health. There were five students who lived far off. Their parents really appreciated that we picked their children up near the Ohya area where they lived.

The deputy representative of NPO called "Making Play Area of Japan Association" visited us at the time. We started the activity called "Asobi-ba" with support of the Teraya promotion president. At the time, many aid deliveries came to our school, and we started the plan to accept the aid deliveries and preserve them.

When the long break of April started, 186 temporary houses were built on our school ground that we shared with Ohya junior high school. At the same time, some people in Kesenuma recruited volunteers, and the activity for reconstruction called "Fuyumizutampo" started.

On May 7, the "Restoration of our Flowerbed Project" started at our school. UNESCO School and Mitsubishi Tokyo UFJ bank organized that project. And the school board in Kesenuma mediated them. Volunteers put additional soil in the flowerbeds and planted flowers. That project gave us excise-equipment like monocycles and stilts.

Other support we received were as follows.

- A harmonica artist called "Tomy Cho" held his concert on June 7.
- Kagome conducted an activity called "Planting tomatoes" on June 10.
- Yatsugatake Museum had an art workshop called "Blooming the Smiles of Kids Project," with an art class and photo class, on June 30.
- JAXA conducted an activity to plant morning glories, which they had grown in outer space, on July 1.

With these supports, we conducted many activities to provide psychological support to children in June. Then we also put an emphasis on sending letters to these persons to express our gratitude.



Class Room Filled with Relief Supply



Volunteers working to remove rubble.

3 Activities to support children's playing and learning

A school dentist introduced us about the study support called “Manabi-ba” by college students from Tsurumi University. They provided that support for children during the summer vacation. They provided study support in the mornings, and some events like watching movies in the afternoons everyday except weekend and holidays. Homeroom teachers didn't commit themselves to this activity so much. It was a big feature that college students provided the support by themselves. During winter break, we conducted this activity for six days. We will conduct this activity during spring break, too.

We also had the activity called “Asobi-ba.” It was an activity to give children play areas to provide psychological support for them. One NPO group called “Making Play and Adventure Areas of Japan” supported us. They changed private spaces in the neighborhood into play areas for children. They worked every day with students' parents.

4 A Nursing Teacher's Assistance in Providing Children with Psychological Support

A temporary nursing teacher from Gifu came to our school in October. This nursing teacher gave counseling to all the children who had lost their parents and houses, and study support to children who couldn't go to school. She also provided psychological support for children who had mental problems, and health assessments for children who lived in temporary houses and refuge areas. Her support was effective for children. Children who had not been in school were able to go to school everyday thanks to her psychological support. We also had a “Gifu section” to introduce our students to Gifu. We got many letters and messages from students in Gifu, and learned the geography and dialect of Gifu.



“Reconstruction of Plant Bed” Project.



“Nintama –Rantaro anime show”

5 School and Local Community Cooperation

We have conducted an activity to clean the Ohya shore with local people for more than 40 years. We began this activity at the start of the swimming season every year. The purpose of this activity is to get students interested in contributing to the local area, to have people care for their hometown, and to raise the consciousness of being a member in the local community and protecting the local environment. On January 27, 2012, we received an award from the Minister of Environment in the “12th Award of the Best School to Clean Environment.” Our Ohya Elementary School has worked for the local environment with the local people. This activity is based on our environmental education.

After the earthquake, we conducted three activities. First, we reviewed how to take refuge from a tsunami with Ohya Kindergarten and Ohya Junior High School. And then, we decided to take refuge on a hilltop located in Teraya area (which is located on the north side of our school) through a wide sidewalk, not on a hilltop by the community center. After the review, some people who are in administrative posts checked how to take refuge there. And then we conducted an emergency drill with all the children from three schools.

Second, we made an alternative school ground with the local people because temporary houses had been built in our school ground. Landowners accepted our request to use their land as a school ground for Ohya Elementary School and Ohya Junior High School. We have promoted the cooperation with the local people. Thanks to that, we received support from the PTA president, students' parents, and local people.

Third, the local people provided a community center, promotion hall, Senno temple, and Seiryō temple as refuge areas for victims. Until 186 temporary houses were completed in June, many victims stayed there.



Cleaning up activity with people from Kindergarten and Ohya Junior High School

6 Issues and Prospects

Someone said to me in a stern tone, “Why did you take the school ground away from children?” Though schools are called “ships floating in a local area,” we couldn’t refuse to help the local people when they face a disastrous situation. As you know, we decided to build 186 temporary houses in the school ground, and thus we had taken away ischool ground from the children. However, we could make an alternative school ground in the cultivation next to our school gym and the rice field next to Ohya welfare community center, because we received support from the PTA president, students’ parents, and local people. Though we can’t be able to hold a sport festival as usual, we’d like to hold one next year to show our gratitude to students’ parents and local people and students’ smile to them.

On August 19, 2011, we experienced the third refuge with Ohya Kindergarten and Ohya Junior High School. It was a real refuge, not training. A tsunami advisory was issued when a big earthquake occurred at 2:49 p.m. Though there was no child from Ohya Elementary School, some children and staff in the Kindergarten and Junior High School took refuge on a hilltop in Teraya area 700 meters away from our school. We did the same way as a training refuge. However, people who lived in temporary houses at the school ground didn’t try to take refuge. It was a big problem. We have to think how to take refuge with people including those who stay in temporary houses.

Also, we have to prepare two different ways to take refuge from tsunami because we always don’t have enough time to escape from tsunami which came from the Ohya shore only 400 meters away from our school. One way is to take time to take refuge on the hilltop far away from our school. The other way is not to take much time to take refuge on the school’s third floor or roof. So we need to think about how to use our school’s roof when no other refuge immediately available.



Kesennuma Junior High School

Responses to the Great Eastern Japan Earthquake, and Activities Aimed at Renewal and Revival

SAITO Hazime, Principal

1 Pre-Disaster School Overview

Kesennuma Junior High School is located on a hill in the center of the city. There is a municipal library, a civic center, and a civic field around this school, so students had good chances to be educated. Though in this area, there were main institutions such as the municipal office and a fish market— Kesennuma city is famous for its fishery—, the number of students had decreased sharply because of depopulation, especially of the city center.

The students were, on the whole, bright, obedient, and well-behaved. Many students studied hard and coped with problems as best they could. Before the earthquake, Kesennuma Junior High School had 11 classes, 345 students, and 31 school employees.



Kesennuma Junior High School before the disaster, in April 2010

2 Immediate Post-Disaster Situation

March 11, 2011, 2:46 p.m. As a graduation ceremony was to be held the following day, 160 students, all of the eighth grade and half of the seventh grade, were in the school building to prepare for it. Then, it happened: a big earthquake, M9.0. We had never experienced such a violent earthquake. Soon after that, as principal, using the school public address system, I had all the school employees and students evacuate into the schoolyard. While we were there, the earthquake continued and a cloud of dust spouted from part of the school building. We were not able to keep standing, so we crouched down. After the quake finally stopped, many people came to the schoolyard in cars one after another to take shelter. As the electricity was cut off we listened to the radio to get information, and heard that a big tsunami was on its way. I and other school employees gathered students in the center of the schoolyard so that they wouldn't see the tsunami. We also made the place safe.

At 3:36, the big tsunami hit the Pacific coast. It was snowing and it was cold, but we stayed outside because the aftershocks continued.

At 4:30, as it got dark, it got so cold that we couldn't stay out there. Thus, 191 students were allowed to enter classrooms and to warm themselves by some heaters, preparing refuge just in case. Moreover, many refugees were allowed into the gymnasium without taking off their shoes. Each school employee took care of the students, organized cars in the parking lot, or led refugees to safety. School nurses helped people who were wet and exhausted.

At 5, we used candles for light, and saved water in tanks, as the water supply was cut off; we asked people to use the restrooms without stopping up the sewer. As principal, I gathered all school employees in the principal's office and I asked them how serious they found the damage, and how students and refugees were. I directed employees to keep paying attention to the refuge, the schoolyard, and the classrooms where the students were. I also told them to come to



Teacher's office soon after the earthquake (on March 11, at 3:33 p.m.)



The schoolyard and fire (on March 11, at 4 p.m.)



Spending night in the school (on March 12, at 6:17 a.m.)

the principal's office in two hours. We discussed and decided what kind of measures we should take. I sent two school employees to the Board of Education, and I directed employees who had old people or children to go home and make sure their families were safe. After that, I gathered employees together every two hours, to get information and give directions.

1 Damage caused by the earthquake

As the school building was earthquake-proof, it didn't suffer serious damage. Some concrete at the foundation of the building came off, and the pillar in the hall cracked; eight panes of glass in the gymnasium were broken, and things on tables were scattered everywhere.

2 Damage caused by the tsunami

The cities along the coast such as Kawaguchi town, Saiwai town, and Uo town in Isinomaki city, were completely destroyed. Though the school building was on a hill and there was little damage, 125 students—one-third of the student population—lost their homes. Some houses were washed away. Others were completely or partially destroyed. Many parents lost their jobs. One seventh-grade boy died in the tsunami after school. Three students lost both their parents and relatives. Five students lost their parents. Seven school employees lost their houses, too, but their families were safe.

3 Making sure students were safe

On March 12, six male school employees separated into two groups and looked for students' houses on foot or by bicycle in the debris. As of March 13, 10 students were missing. As of March 14, only two. As of March 16, just one. On 22 March, we confirmed the fact that the one student who had been missing was dead.

4 About the refuge

The gymnasium, 14 classrooms, 4 special classrooms, and the health office were used as refuge until October 2.

5 The schoolyard

Here, 84 temporary dwellings and a meeting place were built. The left half of the schoolyard was used as parking lot. We won't be able to use the schoolyard for children's school life for more than two years.



In the gymnasium (on March 12, at 6:24 a.m.)



Taking measures (on March 15)



In principal's office (on March 17)



Coping with school documents (on March 16)



One side of the school yard, a parking lot
(on April 28)



The other side, temporary housing (on April 28)

3 Immediate Post-Disaster Responses, and the School's Role

On March 11, about 800 people spent all night in the cold gymnasium. We didn't have enough blankets. What is more, we didn't have enough emergency rations. Just in case we could not receive relief supplies, we did not eat them on the first day.

On March 12, students began volunteering as the Kesenuma Junior High School volunteer team. For example, water to flush toilets was cut off. They put some buckets of water in front of rest room, and directed others to flush toilets after use with the water. They also cleaned the building and got to know everyone, showed others how to work together, and actively helped with the supply of relief food. As principal, I let people stay in classrooms near the gymnasium at the city's request.

On March 13, some people were chosen as leaders in classrooms where the refugees were staying, and organized others. They attended the meeting every day, and asked all to use the school building in cooperation with each other. The organization worked well and city-hall workers were able to cope with most of the problems of refugees. So we school employees mainly provided food at a soup kitchen and cleaned up, answered phones, and coped with problems. We were able to spend a lot of time making sure students were safe, and coping with documents that must be submitted at the end of the school year.

As almost all the school buildings were being used as a refuge, the division between school and refuge was unclear. School employees had to stay all night at school in order to take care of refugees, and keep watch on the school building. Managing members and male employees took turns managing affairs until May. It was a heavy load both mentally and physically. School employees played an important role in terms of taking care of refugees. Our students also did volunteer activities energetically though they were victims themselves, which helped cheer others up.



Putting some buckets of water in front of the rest rooms (on March 12)



Volunteering, the supply of relief food (on March 19)



Discussing with leaders (on March 29)

4 Engagements Aimed at School Reopening

As the graduation ceremony and completion ceremony couldn't be carried out as planned, we informed students on a bulletin board about the date of the ceremony. The graduation ceremony was carried out on March 22 in a multipurpose classroom and the completion ceremony on March 24.

From March 29, we let students study in the morning in the western school building, which was earthquake-proof, because some students had lost their houses and were not able to study. More than 80 students studied there everyday. After that, we arranged eight classrooms in the western school building for the next term.

The Board of Education directed us to hold the opening ceremony on April 21 and the entrance ceremony on April 22. We began supplementary lessons from April 14 in order to begin school as soon as possible. We taught what we should have taught the previous year. Following the direction of the Board of Education, we held the opening ceremony, etc., on the dates specified. As the school building was used for refugees, students began their school life in the older western building.



Start of studying (on March 29)



Studying (April 4)



Supplementary lessons wearing school uniforms
(on April 14)

5 School and Local Community Cooperation

Many of people who took shelter at this school had lived along the coast, and some refugees came from other areas of the city, so there was little sense of community. Some ward administrators from along the coast took shelter and asked us to let them use classrooms as the center of administrative district in ordinance-designated cities. Though we wanted to use them for students' school life, we allowed them to use certain classrooms, such as the music room. But, it was too hard for refugees to change their shelter. The request of ward administrators was refused. We asked local residents to refrain from using fire, so they could not supply refugees with free meals. In terms of the announcement of our requests, the ward administrators played an important role. They were grateful to this school and used classrooms conscientiously.



The gymnasium as a refuge (on May 18)



Graduation ceremony (on March 22)

6 Issues and Prospects

When our lifelines were all cut off in cold weather and when, as a school principal, I had to decide what to do in order to guarantee students' and school employees' safety and manage the refuge, the most important thing was to have enough information to make decisions.

There were a lot of things that I had to decide immediately without the Board of Education's directions. For example, taking shelter away from the school building during the earthquake itself, admitting refugees into the gymnasium, when to let students in the school building, whether I should let them go home with their parents, which classrooms should be used for refuges, whether refugees can keep their shoes on inside or not, the supply of essential commodities, letting them use water and toilet facilities, making sure our students were safe, accepting support groups such as Peace Winds Japan.

I gathered school employees together every two hours in the principal's office and got information and directed them on that basis. We have to imagine what can happen in disaster areas and prepare for them in case we can't contact the world outside.

When, as principal, I made decisions, interaction with other principals was helpful. On March 17, we principals could hold a principal meeting in the Kesenuma area. We discussed the serious damages we had suffered, graduation



A gym class in a hall (on 28 April)

ceremonies, completion ceremonies, and entrance ceremonies. On March 28, elementary schools' and junior high schools' principals gathered in Tsuya junior high school. The number of all principals in Kesenuma was 42, and 19 of them were present. We also talked about what we should do in the future and passed on information to the other principals. After that, we made a list of the damages caused by this disaster. We tried to cheer each other up. While we were discussing the future, I realized how strong the bonds of principals were, and I was greatly encouraged.

Now, the school building is no longer used for refugees, and students study in a new school building. But the schoolyard is still used for temporary housing and parking lots, so those portions can't be used at all. The schoolyard of a nearby elementary school is used for gym classes and club activities. As several schools use the same schoolyard, it is difficult to use it when required. The schoolyard of this Kesenuma Junior High School may be used for refugees for more than three years. Some students may graduate without using our schoolyard at all, though they study even during some days of their summer vacation, and have enough classes to finish their courses. For young people, it is not good to stay indoors for a long time.

The recovery of Kesenuma city has been difficult. As time goes by, more families will still be badly off. More than half of the students, whose parents lost their jobs and houses and who live in temporary housing, have experienced severe emotional shock. We have to take suitable care of them.

A lot of people, not only Japanese but also people from other countries, have supported us. We, the school employees, hope that our students keep on appreciating what they have, and that they study hard in order to show their gratitude. We want our students to face reality and to make progress. We are trying to help them stay strong.



Expressing gratitude to Self Defense Force (on May 11)



Club activities (on May 13)



Message board (on May 16)



Mami Sato, a famous track-and-field athlete, and a graduate of our school, visited us (on May 27)



South Kesenuma Station (on June 19)

Aiming at a “Normal” Junior High School Overflowing with Smiles

MURAKAMI Tetsuya, Principal

1 Pre-Disaster School Overview

1 School district overview

Shishiori junior high school is located in the northeast part of Kesennuma-city, Miyagi Prefecture. The number of population within our school district pre-disaster was 7,777, and it became 6,346, which is about 20% less than before, as of December 2011 due to the Great East Japan Earthquake and Tsunami. At the centre of the school district, there were shopping streets, fisheries-processing works and iron plants, and at the coastal area there were a lot of docks cranes. Agriculture and forestry were active in the north. Inshore fisheries were thriving in the south, and there were a lot of people who worked on fishery fields.



The outside of the Shishiori junior high school

2 The number of students and staff as of March 11, 2011

Students: grade 1 with 78, grade 2 with 75, grade 3 with 78, over all 231
Staff (full-time employment): men at 12, women at 7, over all 19

Almost all students are from three elementary schools within our school district, and only two students are from outside the district. But after the earthquake and tsunami more than 40 students come to school from temporary housing or their relative's houses outside of the school district.

3 Features of our school

Our aim is “to encourage students who fix their eyes on their future and have consideration and keep studying.” We are planning to foster students who can strike balances between wisdom, virtue, and strength.

Our characteristic education activities

- ① Small classes to gain basic knowledge for math.
- ② Environmental education as a part of UNESCO school and ESD (Education for Sustainable Development).
- ③ “Aisatsu (greeting) campaign” and welfare education to make students' minds rich.
- ④ “Kokorozashi (ambitious) education” for students to think about their future.
- ⑤ “Issue solutions study” where students are able to set themes to work on during general study (we call this general study, “Sakura study”).

4 The efforts for the disaster-prevention

People living in Shishiori district had worked on disaster prevention measures diligently. They held meetings about disaster prevention regularly—the title is “being a tough town against Tsunami”—from 2009 to 2011. Attendance including our school staff had discussed what kind of disaster prevention we could take and how to evacuate.

Moreover, our school had worked on disaster prevention study, making a point of incorporating students' experiences during general study, and our continuous attempts were honored as an excellent case in the “13th town planning against disaster prevention award 2009.”

The Great East Japan Earthquake caused serious damage beyond our expectations; however, we can say that our disaster prevention study was effective, considering that there were not so many victims among students, and we were able to see that students behaved properly to the evacuees after the disaster.

2 Immediate Post-Disaster Situation

1 The situation on the day the disaster

March 11 was one day before the graduation ceremony. We had all the grade 3 students went back to their home around 1 p.m. and 96 students, grades 1 and 2, were taking part in their club activities. At that time, the principal (now, the former principal) and an office work manager were on a business trip, and a teacher was on vacation for a special reason. Other staff were working at the school.

2:46 p.m.

The Great East Japan Earthquake occurred. Since there was a blackout right after the earthquake, staff were not able to make emergency announcements. So staff separately came to students and told them to protect themselves from the things falling from above. And then staff had students evacuated to the schoolyard immediately.

2:55 p.m.

Staff gathered students to the centre of the playground, and each classroom teacher confirmed students' safety. There were no people who were injured among both staff and students. There also was no major damage to the school building. But we were able to see some cracks in the schoolyard.

3:00 p.m.

A major tsunami warning was announced. Though it started to snow, since severe tremors still continued, teachers kept students outside and distributed plastic sheets for warmth.

Around 3:10 p.m.

We received an email from the principal who was on a business trip, and it said that because roads were shut out, he wasn't able to go back to school. So the vice principal needed to take responsibility in lieu of the principal. After this email, we lost communication means through cell phones.

Around 4 p.m.

The tsunami happened and local people evacuated from their houses to our school. But we had to have them wait on the playground with students until the strong tremors stopped. In the meantime, some school staff cleaned up the gym and set up stoves to prepare for opening an evacuation center in the gym.

Around 5 p.m.

After we ensured that the gym was safe, we let students and local people in there. The number of refugee increased, and it was estimated that there were more than 500 people other than students.

Around 6 p.m.

After we ensured it was safe, we gave students over to their guardians who came to pick up children, and 16 students got home by 8 p.m. Since some students evacuated to the school from their houses, 94 students stayed at the gym that day.

Around 7 p.m.

Nurses from the Kesenuma health center came to school.

Although they took care of evacuated people, the head office of the evacuation center had not been set yet, and there were not enough helpers. So school staff initiated the distribution of blankets, emergency food and water. School staff and students conducted relief operations, putting blankets on and rubbing elderly people who were wet and shaking.

2 The situation a week after the disaster

On March 12 around 7 a.m., the number of evacuees increased, and the number of people who become sick and died also surged. So we transferred students to classrooms in the school building from the gym.

Around 9 a.m., we assigned roles for each school staff, and they took turns taking care of evacuees, offering foods and preparing hot water.

Around 2 p.m., an emergency command post was set up in the gym, and city officials were permanently stationed there. Therefore we had school staff help with the running of the evacuation center. That evening, the school principal returned from Sendai city, Miyagi Prefecture, which is 130 km away from Kesenuma city, under severe road condition.

On March 13, we were helping at the evacuation center and confirming if students were safe or not, although there was no electric power, water supplies, or phone connections. As of the day 81 students were unconfirmed.

On March 14 in the morning, we offered some classrooms to use as a clinic and storage for relief goods and food. As of that day, 27 students were still unconfirmed.

On March 15, we cleaned up breakages in the school building and checked if there were more damaged places. But fortunately there was not any severe damage. As of that day, 22 students were still unconfirmed.

On March 16, we determined that we were going to conduct a graduation ceremony and completion ceremony



The evacuation center in the gym

on March 24, and we informed this to guardians (parents, etc.) and students. As of that day, five students were still unconfirmed.

On March 17, all of the students except one were confirmed to be safe.

3 Immediate Post-Disaster Responses, and the School's Role

1 Before the emergency command post was set up

While we were not able to get in touch with the city office and the city's Board of Education, evacuees from the local area flooded to our school. Since we did not have time to wait for instructions from the city, we decided to donate blankets and emergency food, such as biscuits and hard tack, which were in the school as stocks.

As it suddenly got cold, we used everything, including mat sand curtains, that could help protect us against the cold. When it came to food, since we had only one and a half day's worth of meals for all evacuees, we distributed them carefully so that every evacuee were able to get one.

As we were not able to use the large-scale heater because of blackout, we made an open air fire on the schoolyard, and gave out simple heaters which were made by plastic bottles containing hot water from the open air fire. Similarly we used candles as lights. Students took active part in those operations and worked diligently. We asked some students who had reserve energy to help school staff to care for evacuees. Devoting themselves to those volunteer activities, students who were also evacuees were able to forget their fears to some extent.



Volunteer staff

What we most cared about was students' health and safety. There were lots of problems, for example, infectious diseases such as influenza, the sanitary condition of toilets resulting from the suspension of the water supply, inanition caused by lack of food, mental care required for fears and distress, and so on. We asked teachers to care about students, and asked especially a school nurse to collaborate with a public health nurse to deal with sick and injured people.

2 System after setting up emergency command post

From the afternoon of March 12, city officials were permanently stationed at our school. But there were not enough number of people so school staff helped them. At the same time, all school officers worked on confirmation of students' safety. It was only on the morning of March 17 that we finished confirmation of students' safety, because there was no means of communication. A boy in the 3rd grade had been missing until the end, and his family registered him as dead in June.

We gradually started preparing for reopening the school, arranging and cleaning up classrooms.

On March 12, since the number of evacuees increased and the number of people who become sick and died surged and we feared infectious disease, we transferred students to classrooms in the school building from the gym. And we asked students who had reserve energy to help us to do cleaning and to distribute meals and to carry goods.

We fixed school the roles of staff as follows.

Principal: Commanding officer

Vice-principal: public relations, communication with the emergency office and volunteer groups

School affairs manager: Making lesson plans and preparation for reopening school

Teachers: Confirming students' safety, guidance in the school, helping to run the emergency office

School nurse: guidance about health, guidance about cleaning, distributing meals

We had meetings with the city's emergency command post regularly, and we tried as much as we could to run the emergency center smoothly.

Those systems lasted until March 24, and on that day we ended student evacuation in the school building. During the month after the disaster, we took turns staying at the school at night, and we terminated this on April 11. We also dissolved the temporary system on April 16, that we took turns staying at school on weekend and holidays, and put the school system back to normal.

4 Engagements Aimed at School Reopening

There were personnel transfers in Miyagi Prefecture on April 1, and seven people including the school principal were transferred. Since lifelines such as water supply and electricity had not been restored, and it was difficult to build a normal school system. There were nine staff, which is 40% out of all the full-time officers, who had damaged houses, where their building was half-collapsed or totally collapsed. This means that most of the school staff were totally exhausted and the strain on the staff was a serious problem for the school.

1 Situation before the entrance ceremony and the opening ceremony on April 21

We held the entrance ceremony on April 21, and we had done two kinds of things by then.

The first one was that we separated our school from the evacuation center. Our school offered the gym as a relief center, but we used a room as storage of relief goods, and a sick bay and a counseling room were used as a clinic and a rest room. For this reason, school staff had to take turns on night duty. We sat day duty as well even on weekends and holidays, and we communicated with the emergency office 24 hours a day. Since staff was completely exhausted, however, we gradually made an end to day duty and night duty.

The second one was securing places where students who had been living in the evacuation center and did not have their own spaces could get relief. We opened the school temporarily while school staff was on duty, and we had consultations with students to take care of their minds, and held classes to make up for the delay in their learning. We had all students come to school every Friday, and we grasped their situations then. Students came to school all with smiles.

2 Policy after reopening school 1 –Smiles and Greetings–

There were a lot of students who were living in evacuation shelters or temporary housing, and who were in severe economic situations because their parents had lost their jobs. For these reasons, 70% of our students have received educational assistance. Nevertheless, they spend time with smiles at the school. We can see that students keep the grief in their hearts, and are trying to get over this painful situation.

We thought that “smiles” and “greetings” would be a big power boost not only for students but also for local people. So our students have led a “greetings campaign.”

The gym was used as the evacuation center until October 2011, and there have been 120 temporary houses in the schoolyard. We think that we need to communicate with local people now more than ever. And we thought “smiles” and “greetings” would heal both students’ and local people’s sorrows.

3 Policy after reopening school 2 – education and devices –

Since the gym was not available, we conducted the enrollment and the opening ceremony in a music room. There are temporary houses on the schoolyard, we can use only a narrower space that before, and it has been difficult to administer the school the same as pre-disaster. Students in 3rd grade, however, had to take an entrance examination for high school. So when we thought of students’ feelings, we focused on rather having healing events than being a stable, usual school. And we run school according to the schedule which is based on the plan made pre-disaster.

The school trip was rescheduled from on May 2011 to October because of the disruption of transportation. Except for the school trip, almost all school events, the school sports meet, the school festival and skiing lesson, were carried out according to schedule. Although there was a proposal that we use an elementary school’s playground for our school sports, we believed that it was more meaningful to do it in our own narrow yard than at the elementary school, which is more than 1 km away from our school. So we let students think about how to carry out the school sports on our small ground, and they came up with ideas that people living in the evacuation center or temporary housings were able to join in with. For these reasons, we were able to carry out wonderful sports even though our ground is small. At



Temporary housing being constructed in the schoolyard.



Temporary housing in the schoolyard

the school festival in October, a lot of local people, not to mention residents of temporary housing, visited and had wonderful time.

5 School and Local Community Cooperation

1 Cooperation after the disaster

We received relief supplies from March 13, and the system of the evacuation center was readied. During the first two days we were not able to use electric power, water supplies, and there were no phone connections, and that was the harshest time. We school staff, local people and students were all desperate, staying gentle and cheering up each other. In this situation, our lives were save by those who donated precious food that was in their houses, blankets, firewood, and so forth.

Students along with local people worked diligently when carrying and distributing stocks.

2 Cooperation in running an evacuation center

On the day after March 11, city officials set up the emergency command post in the gym, and this become the center of running the evacuation center. Until it got on track, we cooperated with it, maintaing relief goods and caring for sick people.

After March 13, the evacuation center was gradually getting ready, as Japan Self Defense Forces was stationed there and started to supply meals. A medical care team, led by Yokohama City, was also permanently stationed in the sick bay, and volunteers came to help us, distributing relief supplies and taking care of evacuees. Even so, the center kept communicating and cooperating with us. In June, Ichinoseki city, Iwate Prefecture, and am NPO corporation made a temporary big public bath for us. We were supported by a lot of people.

With respect to students, they made use of the period of integrated study and communicated with people in the evacuation center as a part of their social education.

3 Cooperation with people living in temporary housing

In April 2011, Kesen-numa city offered the plan of building temporary housing on our playground. We thought that originally the school was for the local area and people, so we are indeed charged with building temporary housing for them, so we decided to accept the offer, even though it would be inconvenient for students over years. In May, when the construction of temporary housing, which can contain 120 households, was completed, we asked residents for to pay attention regarding traffic accidents, greetings, and ties with our school. Representatives of residents were elected and these have cooperated with the school when needed. On the school sports day especially, they made banners and joined a lot of events, which helped our school very much.

6 Issues and Prospects

1 Issues

The center of Shishiori district where our school is located is devastated because of the big tsunami and the fire after it. It will take a lot of years to revive. Half the number of local autonomous bodies cannot have prospects of restarting, and as guardians lost their jobs, lots of guardians think it is not time for them to commit to PTA work.

Although school itself has almost recovered as we can offer normal education, it will take more than 3 years to get back normal schoolyard. Also, more than 40 students come to school from out of the school district by school buses or pick up car by their guardians. It is a burden for all of us, school, students and their guardians.

2 Prospects

We think it is a role of schools to foster students with dreams and strong wills. We would like to do this by encouraging students to study and by ensuring a place for them to flourish, and by having students feel that they are valuable for society. Our school is designated as a UNESCO school and works on ESD (Education for Sustainable Development). We would like to bring up students who dream of creating the future of beautiful Kesenuma city.

Also, we are going to take the role of making ties between adults (guardians) strong. Although we think that ties between adults affect students' mind, now it is getting weaker since the administrative region in the local area stopped working.

Finally, we favorably can run school by the grace of encouragement, both materially and morally from associations and individuals from all over Japan and all over the world. We have not been able to thank you, every time we got encouragement. So now we would like to say thank you now from the bottom of our hearts.



A symbol of the fearful tsunami: A big ship grounded



Outlook of Shishiori district

Matsuiwa Junior High School

Responses to the Great Eastern Japan Earthquake at Matsuiwa Junior High School

KAYAKI Kiichi, Principal

1 Pre-Disaster School Overview

On Friday, March 11, 2011, the movement of students before the earthquake was as follows. In the morning, the whole school rehearsed a graduation ceremony. It was scheduled to be held the next day. In the afternoon, third-grade students were made to go home. Only students in lower grades were supposed to join the preparation for the graduation ceremony. Meanwhile, first and second grade students were arranging the gymnasium and school buildings for the ceremony. Then, the movement of teachers was as follows. A vice-principal went to the Education Board Minami-sanriku Office to explain office work about personnel management, and s/he had a meeting with many officials charged with personnel management. One of the teachers was made to go a hospital inside of Kesennuma City, where was the devastated area, because he fell down from a ladder and got hurt accidentally while he was arranged the ceremony at the gymnasium. I judged his hurt was serious, so I made him go to a hospital by an ambulance with a school nurse. Another teacher went to the hospital by his own car to pick up the school nurse based on my instruction.

I was at work in the principal's room. There were only a female Assistant Language Teacher (ALT) in the teacher's room. The other teachers prepared for the ceremony with students for the parts they were in charge of. Advisors of special needs education and the ALT were off duty fundamentally on that day, so they ought to have been at their own home at Matsuiwa and Shizugawa, respectively.

2 Immediate Post-Disaster Situation

At 2:46 p.m., an earthquake occurred. Its seismic center was Miyagi Prefecture Coast. Its magnitude was 9.0, and intensity of a little less than six on the Japanese scale. I felt the shock of the earthquake at my principal's room. I remembered that there were few staff in the teacher's room, so I tried to give instructions to take refuge using emergency broadcasting in the teacher's room by myself. After I reached there with making my way with the help of the walls of the hallway, I took up the microphone for emergency broadcasting. Then, the power supply of the whole school building went out of order, so my instructions were not broadcasted. Teachers gave students instructions to flee based on their individual judgments.

After the long shaking settled, I went to the ground used as an accommodation for evacuees. First and second-grade students and teachers had already sheltered there, and teachers took the roll of students. Six students (three first-grade students, and three second-grade students) were absent from school. Three students and two staff hurt and bled from their head or arm, because windowpanes at the gymnasium were broken and falling, and they hit students and staff on their way of taking refuge. I told staff to give first aid. Their hurts were shallow cuts in spite of much bleeding. I made students to wait while sitting on the ground, because strong aftershocks were attacking in succession.

At about 3:15 p.m. an official disaster radio of Kesennuma announced a large-scale tsunami warning, six meters, and instruction of an evacuation order to the coast. At about 3:20 p.m., I saw from our shelter that the tsunami was on us. It came from far from Oshima-island, and looked like a white wall. The wave came into Kesennuma Coast while getting over islands in the point of Oshima-island easily. Both students and teachers were riveted on that sight. I measured the height of that wave was more than 12 meters — it was more than twice as high as the alarm. I was afraid it might cause terrible destruction beyond my expectation. I prayed for the safety of third-grade students, I had made them go home. At once, I thought first and second-grade students should stay at our school briefly. I supposed that we could be the first to make appropriate judgments, since we observed the tsunami directly.



3 Immediate Post-Disaster Responses, and the School's Role

Since neighborhood residents took refuge at the grounds of our school with their cars, I instructed three staff to lead cars. It was very cold and light snow was falling on the ground, so I ordered staff to pitch tents, surround with blue sheets, and spread tatami mats brought from a judo hall to prevent students from the snow and wind. I gave instructions to contain students in the tents, and advised neighbors taking refuge on foot in order to enter the tents. I got reports about damage to the school building. The worst damage was breakage of the gymnasium. It was very dangerous because aluminum sashes and outer walls had collapsed, windowpanes were broken, and so I ordered staff to take a measure not to approach there immediately. Moreover, the Judo hall suffered a great loss. Its window glasses were broken, and its ceiling was collapsed. Speaking of the school building itself, several parts of wall tiles were peeling away, and components of joints of school building dropped down. Moreover, leakage of water didn't stop because a pipe connecting with an elevated water tank was broken. Electricity, waterworks, line, and cell phones stopped and went out of order all at once. It was impossible to ask the board of education for its report and instructions, so I had to judge everything by myself for the time being, and I made up my mind to do it.

At about 4:30 p.m., I assembled all the staff, and gave instructions to deal with this situation hereafter. Tsunami came again and again, and warnings from disaster prevention radio communications were announced every time a tsunami came. I judged neighborhoods could recognize the parts of dangerous areas. Then, I decided that to let only those students whose custodians picked them up go home, and I made the other students wait at the school. I instructed staff to stay at school and deal with neighbors and students. After that, parents and guardians came to pick students up one after another. I wavered whether to made students stay at the ground despite the snow and cold.

Many students were forced to stay at the school at that night. At the same time, a bus on which students travel to school arrived and waited at the school. One of teachers, a curriculum coordinator, asked the driver to make students stay in the bus, and the bus company allowed it. I had the bus wait at the ground. There were 30 students whose custodians had not come yet, and I made them stay inside of the bus. They could warm themselves with the heater of the bus. Two hundred cars of evacuated residents stayed at the ground. This school, Matsuiwa Elementary School, did not have stock of provisions for emergency, so I thought about how I should arrange about today's and the following day's meals for evacuated residents, students and staff. After all, I decided all of them must stay, of necessity, with no meal that night. I checked that a little water and gas could be used so far. I directed students to stay in the bus, staff to stay in their own cars, and evacuated residents also to do the same as staff, without meals. Finally, eight students whose custodians did not come and 20 evacuated residents, only elderly people and infants, stayed in the bus. I gave an instruction to bring large cans and fuel in order to make a fire in front of the school building. Shortly, we could make two fires. Staff took care of evacuated residents and tried to get information about security and damage while taking turns to watch fires. It was seen from the school that Kesenuma Bay was burning brightly all night. In addition, constant and strong aftershocks excited our unease. That also heightened staff's anxiety about their families and houses.

The school nurse (she was the attendant of the teacher who had been transported with ambulance) and the teacher, who had been to pick her up, came back to the school on foot. They heard the tsunami warning, so they evacuated to Kesenuma Junior High School near the hospital after they split up with the injured teacher. After waiting there for a while, they gathered information about a course which they could walk, and they reached Matsuiwa Junior High School on foot. At that point, it was said that the injured teacher had left for his home with his wife by his car. Fear was felt for his safety.

I heard about damage in Kesenuma city from the school nurse and the teacher, who returned to school with her. After that, I permitted staff who did want to check the conditions of their homes and their families to go to do that with due care. Several staff went home, but most of them could not approach their own home, and they returned to the school. I determined to go home which is at Motoyoshi-cho and bring rice during the night, because I thought we could not help making students, evacuees, and staff staying without meals also the next morning. I went over a mountain with my car, intending to avert tsunami. I returned home and took a sack of rice (60 kg) and I returned to the school.

In March 12, the whole of Kesenuma Bay was still covered with fire. Massive aftershocks had continued, and disaster prevention radio communications announced warning of tsunami every time aftershocks attacked. Judging from that situation, it seemed to be impossible to come to the school for students on Monday. At about 5:00 a.m., I visited the principal of Matsuiwa Elementary School, and we arranged to close our schools on Monday extraordinarily. After that, I visited Mizunashi Elementary School at Kesenuma City, but there was no principal at the school, so I told the vice-principal about the closing if our schools on Monday.

I assembled teachers and school employees, and I gave them a few directions. These were as follows.

- Continuing to work not only on Saturday, March 12, but also on Sunday, 13.
- Supplying food for students and evacuees by using gas at the cooking room of our junior high school.
- Making temporary lavatories and indications of that for evacuated residents (because of running out of water in the elevated water tank shortly and the impossibility of flushing toilets).

- Keeping out of the gymnasium securely by tape and rope, because there were pieces of glass and peeling walls and the gym would be damaged by aftershocks.

At about 8:00 a.m., first and foremost, students got their first rice balls. We took a long time to begin supplying food without exclusive gas kettles for boiling rice. We were obliged to use small pots and low-burning gas stove at a cooking room in the school, so we had to boil many times over. It took three hours to distribute rice balls among all evacuated residents. They blamed us for our slow distribution.

Many people came to visit the school. They aimed to find the missing or to take refuge. I appointed a few staff in rotation to guide about the situation of Matsuiwa Junior High School and as an accommodation for evacuees. The school was a temporary shelter, and people could not stay overnight at the school. People could stay at the Disaster Prevention Center, a community center, and Matsuiwa Elementary School.

I assembled 10 staff, they did not join in supplying food, but rather, I made them inquire after students who were absent yesterday (three first-grade students, and three second-grade students) and third-grade the day before. They made couples and went on foot to students' house and other places, which it was possible for students to shelter in order to inquire after students. Eventually, water in the elevated water tank ran out. After that, we directed people to use the temporary lavatories. Eight students had remained at school because their custodians did not pick them up yesterday. All of their custodians came to meet students, so they could go home.

I decided to open a counseling room at the school for evacuees. There were tatami mats so they could stay and sleep in that room. Heaters and rest rooms were out of order and there was no blanket and water at the school. I told the state of things, and that people could stay in the counseling room if they did not care about its inconvenience. The counseling room was filled with evacuated residents, and many people were crowded out from the room. Evacuees asked to open other classrooms for staying in. I thought other rooms were not appropriate to stay for people who went out with nothing but the clothes they wore. I explained why I could not do that and people understood it thankfully.

The Head of Mitsumine Residents' Association came to inspect the school. I requested him/her to use Mitsumine Community Center as a shelter, and s/he approved it. I had asked evacuated residents to move there, and about 60 people did. We supplied 80 liters of stocked paraffin oil and two large-size fire extinguishers from the school. Ten or more evacuated people were still staying in the counseling room at the school. I directed staff to supply food as dinner for them.

The result of today's inquiring after students was reported. I confirmed that confirmation could not be made of the safety of two of third-grade students, one second-grade student, and one first-grade student. I said that we would stop confirmation briefly today because of sunset, and we would continue confirmation tomorrow.

Two firefighters came to see the school. I asked them to provide blankets and foods for 200 evacuated people as soon as possible. They promised immediate distribution. However, nothing was provided. I directed staff to check safety at the school, to react to evacuated people, and to gather information about damage alternately, also tonight.

Sunday, March 13, I directed them to supply meals as breakfast, and I told them that they should tell me if they wanted to go back home to check it. I asked staff to inquire after some students (two third-grade students, one second-grade student, and one first-grade student) and the advisor of special needs education. I also directed to inquire after the injured teacher who left his home by car. At about noon, all students and the advisor of special needs education were confirmed to be safe. It was reported that four students who had been feared for their safety until then were safe. At that moment, speaking about staff of school, we could not get hold of the vice-principal, who had a meeting at Educational Board Minami-sanriku Office, and an ALT, who lived in Shizugawa near Minami-sanriku. The school nurse worried about her parents every day because she could not get in touch with them. They lived in The Ohmori District in Shizugawa, so their house must have been washed away by the tsunami. Then, I drive toward Shizugawa with the school nurse to save the vice-principal and to make confirmation of ALT and the school nurse's parents. The vice-principal and ALT were safe. They took refuge in the Shizugawa Junior High School and Iriya Elementary School, respectively. I left the school nurse at the Shelter of Shizugawa Junior High School after I directed her to check on her parents' safety, and I went back to Matsuiwa Junior High School.

Monday, March 14, an extraordinary holiday, I directed staff to supply meals as breakfast at that day, too. The vice-principal began to come to work from that day. I directed staff to look for the said injured teacher whose safety had not been confirmed. The principal of Ohtani Junior High School called at our school, Matsuiwa Junior High School. He told about an entrance examination for public high schools which was taken the other day. He visited Kesennuma Nishi High School, and he heard about a chain of schedules of the entrance examination. The high school administered the examination of this district. From his information, I knew the date of the announcement of entrance examination result was put off to Tuesday, March 23. I gathered staff and discussed a time limit for extraordinary holidays and a postponement of the graduation ceremony. We decided to hold the graduation ceremony on Monday, March 24, (the day before of the announcement of examination results) and extraordinary holidays until March 18, Friday, for the time being. I visited Matsuiwa Elementary School, and I consulted the principal of the school about a limit for extraordinary holidays. S/he agreed with me, so we decided to do it officially. I visited Mizunashi Elementary School, and I told our decision to the school principal.

The Head of the Mitsumine Residents' Association came to Matsuiwa Junior High School, and s/he gave information about a new shelter; Kesennima City Gymnasium (K Wave) was opened as a new shelter. I announced that to evacuees who sheltered by their own car. Most of them left the school and went to K Wave, but seven people continued to stay in the counseling room.

Tuesday, March 15, students came to the school. We staff had a meeting, and confirmed as follow.

- Assembling students on the schoolyard.
- Inquiring after attendance in person and absentees again.
- Dismissing the class after a period today.
- Hearing investigation and recording of damages of houses, safety of families, damage to school supplies, including of uniform and clothes for sports, place of staying, and contact at present.
- Announcement that the graduation ceremony would be held on Monday, March 22.
- Announcement about extraordinary holidays until Friday, March 18.
- Guidance that students should give preference to safety over other things during the extraordinary holidays.

Homeroom teachers inquired after students and did hearing investigation, and made students leave the school. The injured teacher came to work by car. He was diagnosed as having bruises on his knee and shoulder. He was ordered to rest for the time being by his doctor. Fortunately, he had not broken his bone. He told me that he had continued to wait at the playground of Kesenuma Elementary School with his wife after leaving the hospital. He and his wife could not get back to their apartment from the hospital, because a tsunami warning was issued near that area, so they returned, and they stayed at the playground. I directed him to go back home and take a rest, because he said his bruises hurt. (We got information that we could use the road to Karakuwa-cho.)

At that point in time, the school nurse still inquired after her parents. Moreover, the vice-principal's car was at Shizugawa Junior High School. All documents about personnel affairs from the Education Board Minami-sanriku Office were in his car. I went to Shizugawa-cho with the vice-president in order to inquire after the school nurse and to retrieve the vice-president's car. After we retrieved the car, we walked and visited some temporary shelters to look for the school nurse. At last, we visited a house of the school nurse's mother at the Iriya District; we could meet her and her parents. The vice-principal, the school nurse, and I went back to Matsuiwa Junior High School in our own car. I could confirm the safety of all teachers and school employees.

4 Engagements Aimed at School Reopening

We all staff labored over recovery and cleaning of Matsuiwa Junior High School.

Monday, March 21: Vernal Equinox Day. Preparation for graduation ceremony, cleaning, and other preparation.

Tuesday, March 22: The day of the graduation ceremony.

Wednesday, March 23: The day to release the announcement of entrance examinations for public high schools result. After that, teachers interviewed students who failed the examination and their custodians. They discussed application to secondary examination.

Thursday, March 24: Academic year closing ceremony and announcement about personnel transfers in this school.

Monday, March 28: Ceremony for teachers leaving Matsuiwa Junior High School.

Wednesday, March 30: Meeting about taking over students who come to this junior high school after graduating elementary school with teachers of junior high school.

Friday, April 1: Coming new teachers and school employees as new staff. I attended to them.

Wednesday, April 6 –Wednesday, 13: All staff distributed relief from the whole country to the Kesenuma citizens. Headquarters for Kesenuma Disaster Control had carried on relief in the gymnasium of the school.

Thursday, April 21: Introduction ceremony of new teachers, academic year opening ceremony, entrance ceremony. The new term started. (The new term usually starts in April in Japan.) We worked at procuring school supplies and clothes for sports for students who had lost their school things.

5 School and Local Community Cooperation

I appreciate opening of the Mitsumine Community Center for evacuees and designation of Kesennuma City Gymnasium (K Wave) as a secondary shelter. In addition, I also appreciate and am obligated to those who gave food and blankets for staff who waited at the school. Thankfully, many people cooperated with us to reopen Matsuiwa Junior High School.



6 Issues and Prospects

- ① I felt the necessity of drills for staff to assess the situation and to secure the safety of students.
- ② I thought more strongly that school cannot be a long-term shelter. School should be emergency temporary accommodation for evacuees.
- ③ We would like to make full use of this earthquake disaster for students to learn many lessons. It was terrible tragedy but we could find a lot of things we had ignored.
- ④ Students lead recovery of Kesennuma City, so we make them realize that and make them be diligent in attending to their studies.
- ⑤ We make students keep enduring grateful feeling to support from the whole country. Thanks to great support, we could reopen our school.



Lessons From the Disaster

ONODERA Takashige, Principal

1 Pre-Disaster School Overview

Hashikami is located in the center of Kesennuma City, and is a beautiful area that is surrounded by the sea and mountains. Especially Iwaisaki, which is located at the south of the Rikuchu Seaside National Park, is a famous tourist spot for a spouting rock, a beautiful contrast of the white waves that break limestones, and a pine forest. Also, the Oisehama Beach on the Pacific was chosen as one of the best 100 shallow beaches in Japan, and so many people visit there every year.

The school district consists of 13 zones, and the major industries are agriculture and coastal fishery, but the occupations have been increasing variously as time goes by, and nuclear families and families of which both husbands and wives work are increasing. The parents are eager in their children's educations, and they willingly cooperate with school policies. Students are gentle and polite, and not only do they do their best in everything, but their unity is also so firm.

The school is on a hill, and has a great view of the Pacific. About 149 students walk to school. The number of students has been increasing for a declining number of children in Japan. Since 2005, for preparing for an earthquake in off Miyagi Prefecture, they have been making disaster measures like 'self-help' for protecting their own lives when disaster happens, 'public-help' for knowing the activities of the public organization, 'mutual help' which means they try to cooperate with local residents and public organizations for a three year term.



2 Immediate Post-Disaster Situation

The earthquake occurred on the day before the graduation ceremony of Hashikami Junior High School, when teachers and students were busy preparing for it. The graduating students had got out of school in the morning. At 2:46 p.m., a big tremor in which nobody could keep standing broke out, and the students and the teachers in a gymnasium took refuge to outside after the tremor had abated.

Presently, those who expected a tsunami took refuge to the school one after another, but aftershocks were still happening, so they had to be outside. And then a big tsunami attacked, and the areas along the coast were destroyed, many inhabitants there were sacrificed. A great many people



including those who were saved from the tsunami and those who were injured while they were escaping, came to the school, and almost 2,000 people were there, so it was a panic in the school. Unfortunately, some people died because of low temperatures in the school.

After that, the number of the refugees gradually decreased, but it was still confusing for the teachers who were busy to deal with parents who came to pick their children up, to make sure of students' lives, to manage the shelter, and to take care of sick people and injured people.

The teachers' biggest duty was to confirm, on foot or by bike, whether students who had already gone home were alive, to maintain the peace, and to secure water for toilets.

Three days after the catastrophe, a Disaster Measures Office composed mainly of the habitants of the area was set up in Hashikami Junior High School, and they with the teachers started helping the refugees to supply them with daily necessities and foods. The junior high school students and the graduating students also cooperated voluntarily with the teachers and older people.



3 Immediate Post-Disaster Responses, and the School's Role

Because all lifelines were out, we couldn't grasp the situation and we had to deal with the students and the refugees, but one week after we found out that half of our 13 districts were destroyed, and three graduating students were missing. In this area, about 220 people were found dead or lost, and 55% of the students' homes were stricken. There are some students whose parents were washed away by tsunami, or whose parents or grandparents were lost. They suffered not only physically but mentally as well.

The teachers also couldn't confirm that their families were safe or not for some days, and they kept doing their tasks without going home, but it was activity without any information because lifelines were disconnected. There were some teachers who helped the students despite that they had also suffered. They say that some refugees even complained to them, but they didn't feel anything because they couldn't afford to think about themselves.

The most serious problem was how to supply the refugees with foods and blankets or something to get warmth, and the facilities. Some people who were narrowly saved from the earthquake and tsunami died because of heavy cold in snow, or some people got in bad condition because there was not enough food. Plus, the toilets were without water.

Teachers kept trying to solve all difficulties even though they were exhausted. They did anything for other people, for example, they lent their clothes to someone whose were soaked, and they carried sick people in their own cars. They devoted themselves to the refugees, even though they were also refugees.

In such a situation, a member of the city council the area and the local community took action. Three days after the catastrophe, they set up a head office for disaster-control, and brought foods and clothes from around the school, asked local technicians and supporters to secure electricity using a generator, and distributed relief supplies to the refugees. A situation that the school was crowded with the refugees lasted for some months, but there was no confusion because the teachers and the staff made arrangements every morning and managed the shelter. Local police, fire brigade and Self-Defense Forces joined the arrangement and maintenance activities, so the refugees were gradually getting composed, and could cooperate with each other. Especially, everyone appreciated the Self-Defense Forces because they gave top priority to the refugees and kept activities gently.



【Messages from the refugees who were living in the school】

- ◎ I lost my parents in this catastrophe. However, many people helped me in this school, and I was cheered up. I still have hard time, but I'll do my best. Thank you everyone in Hashikami Junior High School. (a man)
- ◎ I have learned disaster measures, but the students voluntarily cooperate with each other and did everything for us. I can't do anything by myself. I understood how important the cooperation was. (a woman)
- ◎ I couldn't get temporary housing, so I was fretting. However, I was still alive, and the students in the shelter were always concerned about other people by their calm actions and thoughts. I was impressed by them. (a man)
- ◎ Looking at the students who were voluntarily helping other people, I thought I must do something like them. I was cheered up by the students. (a woman)

4 Engagements Aimed at School Reopening

On April 1, new teachers and staff were united and the new year (in Japan, new classes start in April) began, but more than 300 refugees were still in the classrooms and the gymnasium, so we definitely couldn't start new classes. Plus, many students lost their school supplies and everything they needed in their school lives, and we were at a loss about what to do.

However, in such a situation, many students were expecting new classes to begin, and many refugees in the school supported us for classes restarting, so we fixed a schedule for new classes starting and prepared some classrooms for it. The refugees living in the classrooms moved to a public hall and to an elementary school without any confusion or trouble. School supplies and other things needed in school life were collected thanks to many supporters.

We made contact with students by local public information and a bulletin board in the shelter, and on April 14 we opened our Hashikami Junior High School. On April 22 we held the opening ceremony in the morning, and the entrance ceremony in a classroom in the afternoon. The ceremonies were held on a small scale, but we all were so glad that we could set a restart.

At this point, there were still more than 300 refugees in the school, and we had to ask them not to enter some classrooms while the students were taking classes. Most of the people living in the school were elderly people, and we were sorry for especially those who couldn't walk or move easily, but they willingly cooperated with us. I really appreciated it. After the catastrophe, I've really thought that the students and refugees could overcome many difficulties together because they were so considerate of each other.

I also appreciate that many people supported and cooperated with us so that we could restart the classes. Students realized that the ordinary is not 'ordinary' and lives are precious. They have positive views of life now, and they say that 'we have to live now, and let's live with helping each other.'



5 School and Local Community Cooperation

Before the catastrophe, there were hotels near the *Iwai-saki* and the *Oise-hama*, and many tourists visited here throughout a year. As Hashikami Junior High School is located at such a sightseeing spot, we acted a project of cleaning *Iwai-saki* and *Oise-hama* every year for the purpose of thinking about environmental problems. Also, local habitants taught their work to our students, for example, how to make salt. However, four Hashikami administrative districts of 13 were destroyed, so we have to reconsider these projects.

Our school started training of disaster measures with local inhabitants four years ago. Students, their families, and all the inhabitants were joining it. This time, because of this training, all of the locals in the shelter participated in making arrangements every morning, cooperated with shelter management, and exercised for their health together. We lived cooperatively like this, so the connection of the area and the bonds among local inhabitants were reinforced.

I sometimes asked the refugees in our school what they thought about the students. They answered ‘they greet me with a smile every time I meet them’ or ‘they’ve been acting positively, I’m cheered up by them and they make me positive, too.’ I learned that the students were trying to do what they could do as members of the area, and the training of disaster measures we had made was useful.

We operated the training with Hashikami Elementary School’s students. We walked around the area and made sure which points were dangerous and which way we had to run in an emergency. However, we can’t imagine when a calamity will happen the next time. We are going to continue the training in order to be saved from a sudden calamity.

At a recital we held in last November, we promoted some suggestions for an emergency. For example, we should hold a consultation with our own families and make some promises in an emergency, and we should protect ourselves at first. And we distributed new maps for disaster measures to each family.



6 Issues and Prospects

All refugees moved to temporary housing at the end of last September, so there have been only students in the school since then, but temporary housings were set up at the school ground and the students have not been able to use there. Also, the parents lost their jobs and have been obliged to live unstably, so we can’t say our lives have been improved. Even some students who are getting cheerful have been enduring at temporary housing, so more students will need mental care after this.

On March 11, 2011, 2:46 p.m., all of our lives changed, but so many people not only from Japan but from foreign countries have supported us. We can’t tell how much we appreciate it. What’s more, some people have visited us directly to cheer us up.

One year will have passed soon since the calamity. Most of rubble was cleaned up, but living in temporary housings and destroyed zones make the students feel uneasy. We school staff appreciate all of supporters, and have to do our best to heal our students.

“In the face of the violence of nature, human’s power is nothing, and nature robbed us of everything precious. This ordeal given by God was too severe to us. I can do nothing but I feel too sad and painful. However, even in this situation, we must not have a grudge against God, we must endure this destiny, and we must live helping each other.” This is a passage of a speech of a graduating student in the graduation ceremony that was held in confusion after the calamity.

Nobody knows when and where a calamity will happen. It may happen at this Hashikami area, and it may happen at midnight. It may be one year from now, or five, ten or more years later. We want to rear leaders who can protect human lives by accurate judgment and energy and communicate these abilities to outside of the school. For this, we have to look squarely at reality that many people were dead and suffered from this calamity in this area, and have





to give up wrong impression like “it’s safe here” or “I have to save other person’s lives.” We have to make plans for disaster measures and teamwork with each organization, and train up with the habitants in temporary housings.

Students are our treasures. They will shoulder the reconstruction, so in this hard situation, it is my most important duty as a principal of Hashikami Junior High School to make a school of warm environment that students can push forward with their aims while “not holding a grudge against God.”

I really appreciate the many people who supported us after the calamity, and hope that all of stricken areas will step forward in reconstruction. Please keep supporting us until we have accomplished our goals.

Oshima Junior High School

Aiming at the Revival of An Active and Extraordinary School and Local Area

SUZUKI Takami, Principal

1 Pre-disaster school overview

1 Details of the school

Oshima junior high school was started by using Oshima elementary school's buildings in April 1947, with 279 students and nine teachers. In 1947, to start the construction, we were facing several issues of finance and location, but thanks to the corporation of the community, students, and teachers, we could start building our school. They supported us, for example, by shipping the building materials by themselves for free. Since starting the classes in our own school building, we kept working on improving our education, such as having education related to the community industry, teaching several fields of academic studies, using video and music materials, and leading students to grow their personalities. So far, almost 5,360 children have graduated from our junior high, and they are working well in several fields. Our education slogans are "creativity," "friendship," and "progress." Based on these slogans, in 1977, when the school construction was totally finished, 80 students and 12 teachers were moving forward in several projects to pursue their ideal goals which are "making a firm improvement in academic education" and "education based on the community."



The view of Oshima from Kame Mountain before the disaster.

2 Details of the community

Oshima is an island in Kesennuma Bay, and belongs to the southern part of the Rikunaka Coast National Park. Its size is 1 kilometer-wide east-west, around 7.8 kilometers-wide north-south, and approximately 24 kilometers in circumference. The south-east coast of the island faces the Pacific Ocean. The island has several famous places. For instance, in the northern part, 'Tatsyumaizaki' is famous for its beautiful view. The famous beaches on the east coast are 'Oda Maihama beach,' which was chosen as one of the top 100 best beaches in Japan, and 'Kugunari beach,' which has singing sands that makes sound when you step on the sand, and is registered as a natural monument by the country. In the northern part, Kame-mountain whose height reaches 235 meters is famous as well.

According to a survey at the end of March 2011, there are 1,114 houses and 3,205 people on the island. The industry in the community has much to do with the delicious seafood and beautiful sea scenery. As a matter of fact, lots of the people in the island are doing fish-raising industry and fishery, on the coast and on the open sea. Although these days, it is true that there is a strong trend, especially among the younger generation, to get jobs in the city, the effort of several groups such as our tourism committee have fostered an experience-activity based tourism program founded on the very impressive beautiful scenery and fishery industry, and the more this tourism program has become well known, the greater the tendency get tourists to visit and stay over nights in the island.

Many parents/guardians of our junior high school students and people in our community are alumni from our school, and they are looking forward to accomplishing with us education for sustainability.

2 Immediate Post-disaster situation

1 Reaction of the school staff and the damage of the community

- ① The huge earthquake suddenly occurred while the first year students, second year students, and the school employees were preparing for the school graduation ceremony which was scheduled to be held the very next day. Immediately, we gathered the students at the gym arena, let them stay there till the shaking ended, and then led them outside safely. Eventually, after considering each student's situation, we brought back some of our students to their families.
- ② Fifteen minutes after the earthquake, the disaster hotline told of the approach of the tsunami, so all the people

in the island had to evacuate. In 37 minutes, the first huge tsunami reached Oshima and since that, enormously huge tsunami, which emerged both near and far from the coast, one reaching 20 meters in height, attacked the city constantly. As a matter of fact, ships and ferries were washed up on the island from the ocean, cars were soaked up, and houses were crushed. In a moment, communication means and the infrastructure became useless. Moreover, the transportation of ships and ferries connecting the island and outside cities also became defunct. This meant the isolation of the island, and in fact for five days from the earthquake, the island was totally isolated.

- ③ Our school's gym arena was not well built for standing against earthquakes, so we had to offer Oshima elementary school, which was our neighbor and registered as an information center during any disaster in the "community disaster prevention plan," for shelter. The rest of the students who hadn't gone back to their houses were evacuated.
- ④ Except for third-year students who had returned home already at the fourth period, most of the rest of the students evacuated with their family, so it was possible to check whether they were safe or not. To check the safety of the students who had returned to their houses, we decided to make a group and visit them one by one. In an hour, except for two students who were off the island with each of their mothers, we succeeded in checking all of our students' safety.
- ⑤ The students whose families had evacuated to Oshima elementary school could meet their families, but there were 10 students who could not see their families because of the transportation problems, such as no methods to come back from outside the island and road disruptions, etc. We gathered those students in one place in the shelter, and kept taking care of them by several staff.
- ⑥ The more time passed, the more number of people evacuated to the gym arena. At sunset, there were 600 people in the Oshima elementary school gym arena, 250 people at the general development center, and 100 people at the nursery school and the meeting offices in that area. People who went outside from the island experienced the disaster at that place, and because of the transportation problem, they were not able to come back to the island, so they had to evacuate at a nearby shelter and stay at that place. Most of the 80 families of our students couldn't see some members of their families, because for some reason or other, they couldn't get back to the island.
- ⑦ "The bay is on fire!" This rumor went all around the gym. To make sure whether this was true, some staff climbed the Mt. Kame. According to the information they brought back, the fire came from the Asahi-city tank, which was located at the opposite side of the bay, and the leaked oil on the sea caught fire. The fire immediately got strong and burned the ships and fish-farm facilities. They saw the huge fire keep expanding to the city in the Shikaori area, with lighting red in the night sky. The opposite side of the bay had fire an awful lot, and that told us how serious the situation was.
- ⑧ Most of our employees commute from outside the island, so it was barely possible to confirm their families' safety or communicate their own safety. Therefore, they had no choice but to do their tasks, and spent the night without contacting their families.

2 The damages of the whole island

- ① In the morning of 12th, as the dawn ends, an unbelievable miserable situation of the city appeared. I totally wish it were just a nightmare. Fuji Mizukami, who is a poet from the island, expressed Oshima as a "blue pearl" in his peace, but after the disaster, there was no peace in that beautiful scenery. For example, the famous 'Kugunari and 'Odamaehama' beaches were covered by debris, and no part of the beach could be seen. To add to this, four villages totally disappeared in the tsunami, several parts of the roads got smashed, and quite a huge area of the palm colonnade also went away.
- ② In the whole island, in terms of the damage to the buildings, 312 houses got flowed away or collapsed, 87 houses got primary damaged, 68 houses hardly damaged, and 272 houses got damaged somewhat, while the number of victims and missing people were 31. Besides, people who were involved in fisheries, restaurants, or hotels for a living got seriously damaged by the disaster.

3 School's situation

- ① As for the school building, the ceiling and the light devices got damaged or dropped in the meeting room, and several parts of the wall on the first to third floors had cracks. Also, the blackboard in the computer room fell down and all the books in the library went all over. Moreover, lots of equipment in the special room, which has special devices to teach alternative subjects, got damaged.
- ② About the students, fortunately, they all survived the disaster, but 13 students' houses got primary damages, and five students lost some of their family members. School staff were also victims. Almost all of their cars were carried away, and three houses of staffers were damaged.

3 Immediate Post-Disaster Responses, and the School's Role

1 The day of 3.11

- ① There were about 20 people who decided to evacuate to our school around four o'clock. It seemed our school was

not strong enough to tolerate the several aftershocks, so to avoid the risk of danger, my employees guided them to the gym arena of Oshima elementary school in the neighborhood.

- ② After guiding them, our staff went to the city office to ask for their support, but in such a serious situation, they didn't have any staff they could send to us, so quickly we held a meeting and decided to do the management of the victims by ourselves.
- ③ Around 5 p.m., we checked what we had at the elementary school, and found about 20 blankets and some emergency foods, but these were not enough. So, we went back to our school to get bedding in the school infirmary, mats and twined carpets in the gym arena, and coal-oil stoves. We brought and provided those to the elderly people in the shelter to avoid cold.
- ④ We couldn't use the flush toilets, so, as water remained in the water tank, we brought water by buckets and stocked it for the toilets. Additionally, because of the blackout, at night, when people who sheltered here wanted to go to bathroom, we had to guide them in turns using flashlights.
- ⑤ It started snowing from the afternoon and it lasted until the night, and the air temperature eventually got lower. The only heats sources we had were the three stoves. The number of the people evacuated to the elementary school was 600. They had to tolerate their hunger by sharing one rice ball among a few people. Also, they were suffering from the aftershocks that kept occurring all night, even while enduring the long, cold, scary night.



The tsunami moved a ferry onto the island.

2 First morning after the earthquake

- ① After waking up, the school staff had a meeting at seven o'clock, and we talked about our tasks. Nursery staff took care of the people's health, while the other staff were divided into two groups; one group for cleaning the bathroom and stocking water, and the other group for collecting information of the island.
- ② Around eight, after exchanging information, we were facing the necessity of getting food and finding methods to avoid cold. We went around the hotels in the island to collect bedding we could use at the shelter. To add this, we asked some shops which survived from the disaster to provide some foods.
- ③ Around noon, foods got gathered somewhat eventually. We found out that the gas at Oshima school lunch kitchen for cooking was enough to use for two weeks for a regular amount of use, so we started to prepare for providing meals twice a day for breakfast and dinner.
- ④ At noon, with the cooking staff and students, we started to prepare for the soup-run. We borrowed dishes and pots from the community center and cooked three big pots of rice porridge with any food left at the school. It was almost for 900 people. We provided it at the shelters, not only the one in the gym of Oshima elementary school, but also those in the general development center, the Hamazaki nursery school, and the Shinnouhei (incidentally, the name of traditional Japanese doll) center.
- ⑤ After the meal, some staff did the cleaning up and the rest went around the hotels, shops, and restaurants in the island to ask for providing food.
- ⑥ At six, we did the second soup-run. At this point, we had a built-up system to run the shelter. With students' support, we mainly did cleaning bathrooms, swiping the classrooms, and soup-run as a routine.
- ⑦ At this day, we made the "Oshima area emergency headquarters" at Oshima city office. Headquarter members were people who were working for community development. Firemen and volunteers were kept searching for missing people the whole day.

3 Three days after the isolation

- ① At six o'clock in the morning, we started the cooking with four cooking employees and 10 students who had evacuated to the school. Half past eight, we finished providing food to people and after the breakfast, mainly junior high students did a great job of treating people. They voluntary did what they could do, such as cleaning up inside the gym and the parking lots. In this situation where adults weren't able to come back to the island, those students were a big help. We are really proud of them.
- ② Around noon, a helicopter from Japan Ground Self-Defense Forces arrived at our schoolyard. After that, we officially got asked to use our schoolyard as a heliport. Also, we got an offer and accepted to use our school infirmary as a temporary medical office of Oshima hospital.
- ③ Since this day, we had meetings at emergency management headquarters every day and I, as the principal of Oshima junior high school, attended it. In our meetings, we discussed the management of the gym arena. We asked to get some cooking staff in order to avoid food poisoning and maintain the food hygiene quality.
- ④ After noon, we went around some students' houses where we were not sure about their safety. As well as this, we visited 25 students who were evacuated to five other shelters in the island, and cheered them up.
- ⑤ From this day's night, we asked the students' guardians to clean the bathrooms and manage all the items related to it. Meanwhile, the school staff went around to each shelter and spent time with children there.

4 The struggle against the mountain fire

- ① At the third day, burned stuff drifted from the other side of the coast and set fire to Kame-mountain in the island. The firefighters did their best to stop the fire, but the fire didn't get weaker. Three villages near the Kame-mountain were ordered to evacuate, and they temporarily moved to our gym arena. After that, we were in a stressful situation, such as there was a rumor that all the people would have to evacuate from the island guided by the Japan Self-Defense Forces and the American Navy.
- ② After noon, the emergency management headquarters offered that "every person who is fine should support to stop the fire," so male workers at my school went there to help them. Thanks to all of that help, the fire got weaker in the afternoon.
- ③ At the fifth day, the remaining fire got stronger again and it got closer to Urano beach which is a bay at Oshima, so my staff headed out to put out the fire. The firefighting was done by all of the people in the island. The fire was a big crisis, but the anti-fire belt, which was made by getting rid of the debris from Urano beach to around Tanaka beach, worked and fortunately the fire was extinguished.
- ④ From the 15th there was an extra ship as transportation for the island a few times a day. A long line was at the boarding platform all the day. Successfully, the fire was extinguished, so we decided to let the female workers temporarily go back to their house in turns. They worked excessively by staying at school, so we instructed them to take a break depending on how their families had suffered from the disaster, but all of them came back to school soon and for ten days since then, they supported the victims devotedly without taking any day off. As well as the adults, children behaved calmly and without showing their fear, lots of them cheered the other students who were suffering from the disaster.

4 Engagements Aimed at School Reopening

1 Ascertaining children's situations, and accomplishing their safety

- ① After the panic of the disaster calmed down somewhat, people who had gone out from the island came back. Some of them fixed up their houses for temporary living, and some of rest moved to their relatives' houses, a friend's place, or a local hotel at the island for secondary evacuation. This made it difficult for us to check where students were, because lots of them changed their shelter several times in a short period. To avoid having a lack of their living information and to take care of their mental health, our employees went around to each public shelters every day in turns, and also visited the places students evacuated to temporarily.
- ② We checked dangerous places over the whole island with the PTA staff and with the cooperation of the Emergency Management Headquarters, we confirmed the safety of the roads which students used to commute every day.
- ③ In April, because the aftershocks (actually, earthquakes) which tend to occur after a big earthquake, lasted quite long, we decided to reconfirm the emergency management manual, and made decisions to change some of it. One example: "While a tsunami emergency announcement is occurring, we will not let any students return home."

2 The effort to have the entrance ceremony

- ① We had a discussion of my staff's work situation with Emergency Management Headquarters, and decided to change the employees' job from shelter management to regular school work. We had regular work for few days and on 23rd, we were able to have a graduation ceremony, and on the next day, we had the completion ceremony.
- ② Lots of students kept coming to the school by their own decision, in order to help with the shelter management. Thanks to these efforts, we were able to start classes on the morning of the 30th and from the afternoon, club activities were able to start as well. Besides doing these works, we kept an eye on our students' physical and mental health and other situations.
- ③ On the morning of April 7, we realized that the only traffic light in the island was working. Around noon, finally electricity also reached our school, but again a huge aftershock, which was level 6 out of the maximum 7, occurred, and it brought us back to the lives without light.
- ④ On the morning of the 8th, we first checked the students' and school staffers' safety again. After that, we checked the dangerous places in the island and the safety of the children's commuting roads again as well. We found out everything was quite fine, so we held club activities and classes as scheduled.
- ⑤ On the night of the 9th, surprisingly electricity reached to the island faster than we expected. The office work of the school to prepare for



Team Oshima: Now, bring your hearts as one!

the next semester went smoothly, and on the 11th, we had a one-day trial for the children entering our school next year, as well as a next-year seminar for second and third years students.

- ⑥ On the 21st, our school had an opening ceremony and entrance ceremony. Even though the situation was not perfectly restored, lots of people attended the ceremony. Students, guardians, and school staff, all of us were really happy to have the day, and we strongly made an oath that “this hard situation coming from the disaster just won’t let us down. We will get over it”.

3 Project “Team Oshima: Now, make your hearts as one!”

- ① In April, the number of the heartfelt words, cheers, and support from all over Japan and the world has increased day by day. Some of them directly reached the school, while rest of them come to us through the Board of Education or the Emergency Management Headquarters. All of them had several heartfelt strong messages in it, such as, “Even if we are not there, we feel empathy,” and “We will do our best to support you over a long period.” We also got lots of words from junior high and high school students who came to Oshima from all over Japan for social experience classes. In addition to these cheers, we had some celebrities’ visits quite often to cheer up our students. For example, some famous singers performed their songs as a delightful surprise, and some did delicious soup-runs. We felt tons of kindness from people, and realized their heartwarming behaviors. Through these, what came out from my mind was just one phrase—to say, “Thank you”. I really thought that, “I want to do my best to respond to their support.” I felt it as a kind of a mission. And I wasn’t the only one who felt that way. When I told the school staff and the students that “Now, we have to think very deeply about what we should and can do to figure out this situation.” All thought the same way as me. That is, to “decide on a slogan; something that will help us feel that we are together, and inspire us to make an effort to realize the slogan. We believe our slogan can lead students to contribute to the revival.” After making this decision, we started building projects in detail to accomplish our goal. First of all, we tried to work on what we can do, for instance, we made thank-you cards to the people supported us, and we did much work to help the revival of the community.

4 “The contribution to the revival” as a high priority

- ① Because having such a terrible disaster was historically the first time, some research shows that the revival may take 20 or 30 years. Therefore, students in this period will accomplish our true revival into the future. Because of this fact, we made our “contribution to the revival” as one of our high priorities for this year. The goal of this plan is to foster the children’s behavior to contribute to the revival in and with the community over a long period. In this plan, we have the students join positively in community activities by putting priority on social education, student council activities, and so on. Besides working practically on this plan, which was decided to be promoted by us and Emergency Management Headquarters, we kept the connection with this plan and the “Team Oshima” project.

5 School and Local Community Corporation

1 Efforts of the PTA

- ① Lots of the house of the members got seriously damaged, but lots of them, especially the executives, come to school and helped clean up all the messy facilities and texts right after the disaster. To add this, after the school re-started the classes, they helped us by checking the dangerous places in the island and keeping eye on the children during their way to school and vice versa. When we had school events, students had to bring their boxed lunches, but quite lots of students couldn’t prepare those. In those cases, we asked the PTA to provide a soup-run for those students.
- ② At the PTA conference on May 2, more than 90% attended, and they decided to support the projects for the school to work regularly. Besides this support, they also promised us to help with this year’s education, which would probably be totally different from a regular year.
- ③ In fact, the PTA strongly supported various school events, such as field day and the school festival. These events were run by our school’s student council, and the slogan decided by them was “to cheer up the people in the community through the events.” In addition, they held these events together with the elementary school students. Thanks to the PTA support, the aim of the events was accomplished. People did get cheered up. Our students felt satisfaction that they are helping the community somewhat to rebuild their lives.

2 Cooperation with the emergency management headquarters

- ① Emergency Management headquarters started right after the disaster occurred and our school was a member of it from the beginning. Because of this, we had a close connection with the headquarters. This connection helped us to manage the shelter and restart the school.
- ② After we managed to start the school, EMH played the role of managing and supporting several events and invitation projects among the students inside and outside Japan. They did a great job and things moved quite smoothly.

③ Because the EMC was also playing the role of providing information to, and communicating with, the volunteers who gathered from all over from Japan, and they prepared and arranged the volunteers to work efficiently. The community contribution programs held by our school had volunteers provided from the EMC. For example, we did the rebuilding of the public field and the beach cleaning. Through these events, EMC scheduled dates for the volunteers and the people in the community, so we were able to work together. Moreover, through this cooperation, we had several chances to know a lot more volunteer associations. These connections enabled us to talk with them deeply and build much deeper connections. At the school events like field day and school festival, we asked them to help us. For instance, they did soup-runs. Those events were successful, of course, because the people in the island joined us, and we enjoyed lots of attendance of volunteers from inside and outside of Japan.



To have a beautiful beach once again

3 The unity of the police and fire station

- ① In May, the ferry transportation started again, and lots of construction workers came to get rid of the debris and fix the roads. The more trucks come, the more trucks and cars moved around the island. Even in the schoolyard, there was construction for temporary residences. We asked the police to keep a keen eye on the students' safety.
- ② We consulted the fire station to improve the emergency management manual. As well as this, we offered them various times to lecture us on well-designed fire drills.

4 The bonds with the community

- ① As I wrote earlier, the fishing industry in the island had terrible damage by the earthquake. Besides, the industry was about to get over the repercussions from the damage of the Peru coast earthquake's tsunami in February 2010. At that tsunami, the fish farming industry had the most damages, but they were almost at the point of overcoming this damage when the earthquake again brought very hard times. It was true that the situation was brutal, but they were quite tough. They tried "not to let down the children. Otherwise, they might lose their hope in their home town and in their future itself." To achieve this, they offered a chance to children to experience Kazi-tori, or how to drive a fishing ship, and other fish industry jobs. The community supported us quite firmly. With their strong help, we are working to fix the fish farming facilities in our school. Fortunately, it seems that we can start scallop farming soon again. To add to this, alumni in the community offered our students a chance to enjoy music appreciation concerts, and also they held guidance seminars for their future careers.

5 Connection with several organizations, such as NPOs

- ① We cooperated with various organizations which supported the victims. We were lacking teachers to teach some fields, such as physical education, music, and sciences, but in those organizations there were some people who specialized in those fields, and they offered classes for the students. This made our schools classes much better. Also, lots of volunteers, some of them were adults and others students, were a big help for us. They supported our students by giving advice for their future careers, and during the summer vacation, they taught some students. This led us to taking much closer care of each of the students.

6 The bonds with the people who moved into the temporary residences

- ① When it seems necessary, our school attended the community meetings held by the people living in the temporary residences. We discussed and checked several points in order to move smoothly in any situation. When any disasters occur such as fire or earthquakes, because the temporary housings are built in the same area as the school, we are likely to escape together. While the temporary residences are in our schoolyard, we have to evacuate to the elementary schoolyard next to our schoolyard. Therefore, following the guidance given by the firehouse, we decided to do the evacuation together as three entities: the elementary school, the junior high school, and the temporary residences.
- ② We tried to create deeper understandings in the school about the people in the temporary housing, because they are the "closest community in our school area." To achieve this, we invited them to our school events and some classes which were open to the public, and they visited these classes. Meanwhile, the temporary housing community invited our students to their community events as well. Through these activities, we are creating strong connections between the school and the people in the residences.

6 Issues and Prospects

1 From the viewpoint of school education goals

The slogans of our school's education, "Creativity," "Friendship," and "Progress," are quoted from our school song. This song was written by Fuji Minagawa, who was a famous poet from our area who graduated from Oshima Junior High School. I can't help feeling that the slogans were messages from Minagawa sent almost half a century ago. Also, I understood these messages as "cheering on" from lots of school staff and alumni who had kept the slogans in mind and did their best during their own school years. Our school has kept working on education based on the community for a long time. During the time we've had this education goal, we have enjoyed great support from the community and it seems we were achieving our goal in a fixed way. Even in such a hard situation, we want to keep working on this goal with the support and prediction of the community, and try to improve our educations. I'm positive about pursuing our ideal and making progress by improving the school to an even more impressive place.

2 From a misery, to a belief

When the new year of 2012 came, we were finally able to have regular school lives. This was possible because of the steady support of the local community and the support, such as the "cheers" and the volunteers from inside and outside Japan. Through the extremely hard situations which we had right after the earthquake, what came up first in our students' minds was "to think what I can do to help other people." Following that feeling, several cheers and supports from inside and outside in Japan led the students to learn "appreciation" and "the feeling of being connected with others," ties that Japanese call "kizuna." In other words, they felt secured and protected by others. As a student council activity, students are working on a project called "Ki"—which literally means "spirits," but our students especially wanted to indicate "what they had felt through the revival." It was true that the disaster was a hard time for the students, but the students didn't want to finish this experience as just a memory misery—instead, but they wanted to transform it to "a belief that connects us to the future"; their watchwords are to "keep thinking what you can do for the society, and keep behaving independently as a grown up person." As a teacher, I want to help them to pursue those beliefs.

3 Improvements for surviving a disaster, and the mental care of the students

- ① As a school on an isolated island, we'll learn from this time's disaster to enable the students and the staff to survive in any disaster. We have determined to promote education for surviving a disaster, for example, improving our evacuation manual, checking the dangerous points around the school in every single fixed period, creating a survival map, and sparing enough time for fire and other emergency drills. This time, our school was not registered as a shelter, but as a matter of fact, people living around the school evacuated to our school and when the fire occurred, our school was officially registered as a temporary shelter. Considering all these facts, we have to discuss what is our school's role against a disaster. This should be considered for the manual to survive from a disaster, and at the other organizations and community with whom we need to cooperate with in an emergency. To add to this, we have to create a fixed manual and system that can assist the school to recover from the disaster as soon as possible.
- ② After such a huge disaster, a big concern was the mental health of children and staff. At our school, we had several meetings on how to take care of children's mental health. Also, we brought some staff to the study session held by the city board of education. To add to this, we offered information and gave lectures to students and their parents on how to resolve their mental problems. Beside these activities, we also tried to check on the mental health of each student. For example, we did home visiting, education consulting, and stress checks. Moreover, we invited clinicians outside our prefecture to come, as well as incorporated groups, with other school counselors and doctors. For some students who were having serious mental problems, we supported them by working with the city disabled persons center and the education office's children's support organization. Some of the students seemed at an early period to be having mental troubles, but, eventually, they seemed to have calmed down. Yet even if they look fine, data from the Hanshin-Awaji earthquake—a huge earthquake that occurred in Japan in 1995—shows that students require some medical care for four to five years. It is expected that later in the future, after people get over the shock of the earthquake, lots of students will suffer from secondary (post-traumatic) shock. We are planning to cooperate with several organizations, and maintain a system for taking care of the students in the long run.



Toward tomorrow (One scene from a field-trip day)

Jonan Junior High School

What We Learned from the Great Eastern Japan Earthquake, and What We Want to Communicate About It

KUMAGAI Choetsu, Principal

1 Pre-Disaster School Overview

Under a lively and natural atmosphere of the school, students at Jonan Junior High School take part in school events, school council duties, and club activities with passion and are able to experience success and fulfillment throughout their school life. During the winter, as a whole school activity, we conduct fitness training. Recently, our achievements in athletics tournaments and road relay races have become remarkable, encouraging our school as a whole.

The school district lies between the Ookawa River and the Kamiyama River which used to be a pastoral area. Now it is one of the most active and liveliest areas of the city, being the shopping district of Kesennuma. The area is made up of the Kujo Elementary School district and a part of the Minami Kesennuma Elementary School district; an area that was damaged severely by the recent disaster. The school was established after splitting from Kesennuma Junior High School in 1978. Although the student population had risen to 525 in 1987, numbers have fallen to about a half in recent years.

Present situation: February 1, 2012

- 269 students (83 first year students, 81 second year students, 98 third year students, 7 in Special Needs Class)
- 12 Classes (First year classes: 3, Second year:3, Third year:3, Special Needs Classes: 3)
- 31 Staff members (1 Head teacher, 1 Vice Principal, 16 Teachers, 3 Full-time Instructors, 1 School Office Staff, 1 Caretaker, 7 Part-time Instructors)

Although the tsunami reached our school district, causing flat areas of the land around the school to submerge 1~2 meters, because the damage done to the National Highway 45 (Kesennuma Bypass) that runs west of the school was fairly small, reconstruction works were able to begin at an early stage, and so shops were also able to operate fairly quickly.

In addition, shops, businesses, offices etc., that were along the coast that suffered from loss and damage of buildings, have started to move to our district making it livelier than ever before.

2 Immediate Post-Disaster Situation

A few seconds before the earthquake, the school's HomeSeismo—an Earthquake Early Warning (EEL) Receptor—reacted and the EEL warning sounded. Although staff members hurried to their classes, the tremor stopped them from walking any further.

At 14:46 (2:46 p.m.), the earthquake shook the four-story high school back and forth. The lights fell from the ceiling and a large boiler was tipped upside down. Many cracks were made in the walls, consequently causing many to crumble and break.

Power cuts followed immediately after the earthquake so we could not use the school's public address system. After the shaking had died down, staff members ran to classrooms while giving out evacuation directions. These procedures were taken under the situation of not being able to use the school public address system, which was something overlooked during such fire drills.

At the time, students had just finished their preparation for the graduation ceremony and were in the midst of an end of day meeting where no teacher is present. Seventh grade students on the top floor were in panic. It made us realise the importance of conducting evacuation drills in all sorts of circumstances.

After the earthquake, students were evacuated to the schoolyard





and a register was taken. All seventh and eighth graders in the school were unharmed (ninth graders were sent home to prepare for the graduation ceremony the next day). Because the earthquake had hit during students changing after finishing preparations, some were in their shirts. Students were given emergency blankets that had been in the school storeroom.

Right after evacuating, we were alerted that a large-scale tsunami warning that predicted a tsunami of more than 6 m high had been announced via the cities disaster management radio communications. At first, we had taken refuge in the middle of the schoolyard, but then we decided to go further away from the nearby river and reached the emergency staircases that were a level higher from the ground. (Geographical data of the nearby surroundings were taken using 1 seg: Japanese data transmission services for mobile devices)

During so, the Kamiyama River, which flows south of the school, increased in water level and started a back current bringing debris and rubble with it. Soon we saw the tsunami flowing along the road in between houses from a different direction to the river. Little by little, the tsunami flowed in to the schoolyard.

This time we evacuated the students to the third and fourth floor of the east stairs, which had just recently finished seismic strengthening work. Nearby residents also evacuated here with us.

Even with the tsunami swarming towards us, many people came to evacuate. Some walked through the water getting soaking wet. Staff members gave them their jerseys. In addition, the situation had no electricity or enough stoves to use. We opened the school's first-aid room to the public and brought out a stove for warmth. However, most people only had shelter from the wind but no provisions against the cold. Fortunately the tsunami stopped after covering half of the schoolyard, and water did not enter the building.

However the nearby roads that are 1 m below the school grounds were submerged, leaving the school isolated. The car alarm of a car being swept by the tsunami kept ringing. Most houses near the school were inundated above floor level.



Damage report

- Students with a loss of a parent/guardian: 1
- Students unable to live at home due to damage, inundation caused by the disaster: approx.30%
- Students that have moved out of the city due to the disaster as of April, 2011: 9 (2 have returned)
- Students that have moved in to the city due to the disaster as of April, 2011: 6 (1 has returned)
- Families receiving educational aid as of 2011 (due to unemployment etc...): 42% (2 times more than that of the past year)
- Staff members that have lost a family member: 1 (As of 2011)
- Staff members that have had their houses, apartments etc... completely or partially destroyed: 8 (As of 2011)

3 Immediate Post-Disaster Responses, and the School's Role

1 Damages of School and School District

Following the earthquake, parents started to turn up to the school to retrieve their children. Although the warnings were still in place, the school decided to hand the children over to parents once the parent was identified as being the guardian of the child and only under the condition that parents would take their children to higher, safer ground.

Despite the fact that the tsunami was still in flow, some parents went through the water that was as deep as their hips, to retrieve their child. If the water level were a few centimeters higher or if the second



child. If the water level were a few centimeters higher or if the second and third waves were any stronger, nobody knows what could have happened. Taking account of this, we as a school must discuss on how to hand over the students and inform parents of their child's safety while a large-scale tsunami warning is in place, and also to get these rules across to parents.

As the sun started to set, it gradually got colder. The aftershocks seemed to have died down to a certain point, so we decided to guide the students and nearby evacuees to the school gym and opened it publicly as a shelter (the school was a designated shelter).

Due to the fact that there was no electricity, we gathered candles, torches, and radios from the school. However there were no batteries so many of the torches and radios were of no use. The gym's floor was laid with all the gymnastic mats available and all the emergency blankets that were stored, as well as all the *futon* (Japanese quilted mats) in the first-aid room along with any curtains, which were used as means to keep warm.

In the end, along with some 30 students whose parents did not turn up, staff members and nearby evacuees spent a cold and fearful night at the school. At night, the sky to the west was dyed deep red due to fires along the coast. No one was aware of where the fires broke out. Mobile phones were unable to recharge so we could not gather sufficient data from 1 seg . We could also not use In-car TVs due to worries of using too much of the car's oil to power it.

For dinner, we shared out instant noodles that a staff member brought from their house, using paper cups. The portable gas stove came in handy. Obviously, there was a limit in using portable stoves though (later, we borrowed propane gas from a parent's work place).

The next morning, the water had drawn back and the water level had fallen leaving mud and rubble on the roads. However, the road to the west of the school building had relatively less rubble and so it was possible to bring out cars. Using a bypass, a number of staff went home and brought gas stoves, portable cooking stoves, food, and water back to the school. Mainly the female staff helped to cook rice using the portable stoves and made onigiri (rice balls) for the evacuees.

Until aid from the city arrived, it was a continuous relay of staff going back and forth between their home and the school to bring and give out any necessary items including food and water. We lived sharing these supplies. (Due to the fact that the damage was severe and we could not get contact from the city, the shelter was managed independently by our staff.)

How can one as a headmaster/principal, gather information, make decisions and give orders and how will the staff interpret orders and act independently? I could not help but realise the importance of organization management.

We were busy running around checking on the whereabouts and safety of students. At times, when we visited houses, the houses were completely damaged so we could not tell where the inhabitants had gone. In the end it took five days to confirm everyone's safety. We felt relief being able to confirm the safety of the students, including the ninth graders who had left school before the earthquake, and the absentees of that day.

Whilst confirming the students' safety, we also made preparations for the shelter such as taking water from the pool for toilet water, searching for propane gas, food and, water etc., by cooperating and discussing with parents and other citizens. On the 16th there were people who cooked voluntarily. From then on, the evacuees cooked their own food and lived independently, thereby reducing the burden and role of the staff. Many staff members worked even though they had not been able to start on the reconstruction of their own houses or confirm the safety of their own families. It was true that we needed



contact with the city and sharing of roles with city staff; however, unfortunately we could not do so. Moreover, our staff took a rotation of duties until the 16th where in the meantime no help from the city was sent. At times, the number of people in the shelter reached more than 60.

Before dawn on the morning of the 14th, we offered a few classrooms to fire officers from the Tokyo Fire Department who arrived to our school with more than 10 vehicles. The following day, they left for a different location. Then, on the morning of the 15th, around 500 people from the Self Defense Force (SDF) of Oita prefecture (a distance of approximately 1500 km from Kesenuma) arrived, and so we offered all of our classrooms for their need. As a head teacher, I discussed matters with the officer in charge of general affairs on a daily basis. Whilst rescuing people, the Self Defense Forces also helped to reconstruct and recover the school by fixing the plumbing and the electrics. They also gave out food for the staff and the evacuees. After a while, they performed a joint concert with our school's brass band, helping to relieve the student's mental stress.

As members of staff, we instructed students on the motto of "What can we, students of Jonan High, do for the recovery of Kesenuma? That is to let the Self Defense Force work comfortably? To do so, let's show our gratitude and sincere feelings with lively greetings and hellos." I believe that our students were able to keep high hopes and be strong for these nine months thanks to the Self Defense Forces and their fabulous work.

Slowly decreasing in numbers, the Forces were stationed until the 12th of July (the large scale Oita forces withdrew on the 17th of May).

On the 17th of March, a headmaster meeting of the district was held and we exchanged information on damage reports of each school. We also discussed when and whether or not to proceed with the graduation ceremonies. Later on, we held up posters in shelters and performed the graduation ceremony on the 22nd and the completion ceremony on the 24th in the school gym with the cooperation of other evacuees. Because some had their school uniforms washed away, there were students that attended in their gymwear or their plain clothes. The graduation ceremony of Minami Kesenuma Primary School that suffered severe damage was also held in our school's gymnasium.



4 Engagements Aimed at School Reopening

Until the 17th of April, no rooms except for ones on the first floor were open, so we were in no state to allow students to attend school. We were very worried as we were unable to get reconstruction work started. In the meantime, we were busy going around shelters in the school district and checking up on how students were doing.

The City Education Board announced the reopening of the schools on the 21st of April. Following the announcements, the evacuees in the school were given guidance on moving to a different shelter. On the 16th, evacuees moved from the gym to other shelters. The SDF were also informed to move from the classrooms. They cleaned the classrooms and moved to the gym, special-needs building (first and second floors), and the grounds. Later, although the SDF could only help for a few days, with thanks to them, a studying environment was established.

Taking contact with graduates of the school, we were donated many school uniforms and gym kits accounting to quite a stock. With regards to lost textbooks and other school equipment, we had support from the City Education Board. The Board also took action concerning school lunches, giving the possibility to supply lunches to those unable to cook at home. Furthermore, the Board dealt with the problem of means of transport for students living in shelters far from the school, and arranged for a bus circulating the city.

There were many problems facing the reopening of the school, such as problems with the school building, educational material, transport to school and meals. It goes without saying that after disasters, although actions will differ on how severe the damage is, we must prepare for a variety of situations. Thus I as head teacher, felt the importance of holding sessions about schools safety simulating various possibilities, and exchanging ideas, building a shared understanding between the teachers.

Concerning guidance to the school for new students, we were able to post to them using information from their primary schools. Thinking of the possibility that the post wouldn't get to them, we also put up notices with the schedules in shelters and shops.

We managed to conduct the reopening of classes for students on the 19th, the opening ceremony on the 21st, and the entrance ceremony on the 22nd. We especially felt joy that we were able to welcome the 85 new students, symbolising one phase of revival and restarting from the disaster.

5 School and Local Community Cooperation

It was good that we were able to open a shelter at our school, but found it difficult to manage it just with members of our staff. Primarily, we were to work with staff from the city and cooperate in the management of the shelter, but because of the immense scale of the disaster, there were many shelters in the one district, meaning that we had to be self-sufficient.

In addition, concerning our cooperation with the SDF, although we were able to work together with the general affairs officer of the SDF, we were not able to collaborate with the officer in charge of the city. Each helped how they could in their own way: Local welfare commissioners and the self-governing body took turns to give out food in the shelters and to patrol the district; neighbours of the school gave our school shelter supplies. Taking account of these events, we must discuss with the city and the self-governing body, the matter of how shelters should be managed and organized and ways in which things could become more effective and efficient. I must also add that we must also cooperate with the 70 households living in the temporary houses located in the inner grounds of Jonan High.

6 Issues and Prospects

School staff managed the shelters with responsibility, each moving actively. We were able to run the shelter thanks to the staff bringing food, water and stoves etc., from their own houses.

However, would we have been able to run the shelter as rapidly if the earthquake had not occurred during staff working hours? Also, if the earthquake had not been during the long-term break in March, how many staff would have been able to help in managing the shelters? What would happen to the curriculum? There are many problems that need looking at.

From material to emotional support, we were very grateful for all the help we received. I feel that I have never before felt such kindness and warmth of people's hearts. With great help from the people, we were able to get going once again. In Jonan High, we made message cards expressing our thanks for help in an activity to show our gratitude. We made sure that as many students could take part in making the messages and cards. Exchanging thank yous are sure to make the heart healthier and enrich emotion. It is without saying that we have lost a vast and dear amount due to the disaster, but it is also true that we have also gained. Strengths and weaknesses of humans, the wonders of what people can achieve and the energy to reconstruct and restart after such a traumatic event, are among some of the things that we have learnt. I also felt the need to reflect on a more flexible curriculum and effective education. For next year, I will make a proper plan and aim to teach the way of living boldly and strongly. I believe that this will act as emotional care for the students and connect to the reconstruction of the city.

I end on the note of, once again, expressing my utmost gratitude to those who supported us.

Omose Junior High School

Aiming at a Revival of an Active and Vibrant School and Community

ONODERA Ryoichi, Principal

1 Pre-Disaster School Overview

1 Portrait of the school and the community

Omose Junior High School is comparatively new: it was founded in April 1990, uniting a part of Matsuiwa Junior High School with that of Hashikami Junior High School. The school district of Omose is situated in the middle part of Kesenuma city. The number of households in the district has been increasing, because an inflow of population accompanied by the southward expansion of the town area brought about considerable housing developments. Formerly most of the population were involved in agriculture and fishing, but with the extension of the newly developed residential area, occupations of local people have diversified. In April 2008, a desire of the residents was fulfilled: the district was recognized as an independent administrative unit of the city. People of Omose are eager to play an active role in developing the community, having high expectations and interests for school education, and willing to cooperate with school staff.

2 Number of the students and the school staff

(Number of the students and the classes)

Grade	First year	Second year	Third Year	Class for students with mental disability	Total
Students	71	67	65	1	204
Classes	3	2	2	1	8

(Number of the school staff)

Principal	Vice-principal	Teacher	School Nurse	6.6 teacher ¹	Office clerk	Part-time teacher
1	1	11	1	2	1	1

Care taker	School counselor	Assistant language teacher	Supporter for special needs education	Supporter for student guidance	Total
1	1	1	1	1	23

3 Outstanding features in education

- ① As a member institution of ASPnet (UNESCO Associated Schools Project Network), and in accordance with its founding philosophy, we carry out in practice the idea of ESD (Education for Sustainable Development). In collaboration with Toin University of Yokohama, we incorporate the idea of “sports as culture” into school education; we continue to conduct environmental education as well.
- ② Through the Fulbright Memorial Fund Master Teacher program, we promote cultural exchanges with Callisburg Middle School in Callisburg, Texas.
- ③ A non-profit corporation, the community-based sports club “NEO” supports club sports activities of our school. We also actively cooperate with local people to organize occasions of communication, such as “Omose Community Friendship Meeting,” in order to enrich school education.
- ④ We set up morning reading time before classes to improve the students’ reading comprehension and to produce a calm study environment in the class.
- ⑤ We provide many opportunities for the students to relearn, such as study skill training in the meeting after classes and study meetings during vacations.
- ⑥ We try to improve the students’ study ability and to better the atmosphere of the class, utilizing the Standard Achievement Test² and Q-U Questionnaire³.
- ⑦ We actively practice volunteer works, such as “Flowering Route 45” and “Community service for the

environment,” to cultivate the students’ sense of contribution for the community.

- ⑧ We are making the school open to the community, circulating in the school district letters from the school and those from the principal, and providing opportunities for the local residents to take part in the school events.

- 1 Teachers employed for one school year, which is divided into two periods of six months
- 2 Hyojun Gakuryoku Chosa (標準学力調査), developed by Tokyo Shoseki Publishing Company.
- 3 Q-U Chosa (Q-U調査), invented by Shigeo Kawamura, Professor in Faculty of Education and Integrated Arts and Sciences, Waseda University.

2 Immediate Post-Disaster Situation

1 Circumstances of the school right after the disaster

The graduation ceremony was going to be held the next day: the third year (graduating students) went home from school in the morning; the first and second year students were making arrangements for the event. It was two forty-six in the afternoon. When the preparation for the ceremony was almost finished, and the students began to leave school, except for the members of the student council decorating the classrooms of the graduating students and for the students arranging the gymnasium, the ceremony place, the school was struck by the huge earthquake, registering a magnitude of 9 and an intensity of weak 6.

When the big quake stopped, we made the students in the building take refuge in the schoolyard. The disaster alert radio started giving a severe tsunami warning, the students on their way home came back to school, and the local people fled into the yard, one after another. The staff and the students of Omose Elementary School also took shelter in our school, for fear the tsunami could flood theirs. In the middle of repeated aftershocks, the snow and the cold, we had to stay in the schoolyard. We were informed that the tsunami could be over ten meters high, and considering the risk that it might reach up to the yard, we decided that the second floor of the school building would be the refuge, then moved the evacuees to the all-purpose room on that floor. Some of the school staff said that they saw the approaching tsunami surge down the trees while they were going upstairs. We set up in the principal’s office the center for attention to the evacuees. From the balcony of the second floor we saw the tsunami flowing over Kurosakijima Island at the extreme south of Oshima Island, and realized that an enormous tsunami was invading Kesennnuma Bay.

2 The state of damage in the school and the community

The school did not suffer direct damage from the tsunami, but the earthquake caused much damage: leaking of water from the hot-water supply facilities on the rooftop, many cracks on the walls of corridors, the fall of part of the ceiling in the gymnasium, breaks of windowpanes, breakage in the connecting part of the elevator building, subsidences and crevices in the parking area, fall of air conditioners in the computer room, breaking of the tableware in the home economics room, etc. Electric current, water supply, and telephone services were cut off.

3 The damage among the students and the staff

The houses of twenty percent of the students and five staff members were carried away or partially destroyed by the tsunami. There was no loss of life among the students and the staff, but some lost or missed their family members.

3 Immediate Post-Disaster Responses, and the School’s Role

1 Starting up and running of the evacuation site

About five o’clock, after some of our personnel made a walk-around check of the inside of the school building and made sure it was safe there, we set up the shelter in the gymnasium, and the evacuees moved there. As we could not communicate with the city Board of Education because of the interrupted telephone service, we asked former members of fire stations, officials of neighborhood associations, and other local people sheltered in the school to help us run the refuge, with the staff of our school and Omose Elementary school taking the initiative and charge. The evacuees spent the first night warming themselves at the oil heaters, prepared for the graduation ceremony. That evening some local citizens prepared rice balls, we distributed them with priority to the children and elderly people. On the second day, two city employees (one was a nurse) were posted to our shelter. With the city employees, the residents in charge of the refuges in the district, the heads of local institutions, the two principals of the junior and elementary schools, and others, we formally started up as steering members the headquarters of the evacuation site, and decided on the lines of its management. From the third day, the municipal employees took the initiative in running the site. We held a meeting at the headquarters at eight in the morning and the afternoon to confirm the state of the shelter and to exchange information. For one week after the starting up of the refuge, there were about five or six

hundred evacuees; after that the number of the sheltered remained around three hundred.

As for the preparation and distribution of food, the president of the local Social Welfare Council took the lead, and volunteers among local people and evacuees worked together. We prepared food twice a day, and distributed it in order on the instructions of the headquarters. About three weeks after the earthquake, Self-Defense Force personnel took the work over from the local volunteers.

2 How the school staff dealt with the evacuees

Right after the disaster, our personnel put their efforts into calming down the students and ensuring their safety, but they also guided the cars of the citizens in evacuation. Some people were sucked under by the tsunami, others got hurt during the disaster, and the school staff helped carry the injured and gave them first aid in the sickroom. When the evacuees moved into the school facilities, the staff made a previous safety check and guided them.

After we started up the evacuation site, the staff of Omoze Elementary School and our school cooperated to run the shelter. To let the evacuees move into the gymnasium we put the facility in order, clearing away desks, chairs, scattered pieces of broken glass and other things, and carrying there necessities of life in the refuge. The water supply was cut off, so we carried water from the swimming pool to lavatories, taking care not to clog up toilets. The electricity service was suspended, and we had to supply candles to the evacuees. On the day of the disaster, all the personnel of the two schools worked together day and night to cope with the urgency. On the second day also, the staff of the two schools took initiative to run the shelter.

After the municipality took the charge of the evacuation site on the third day, the school staff worked by rotation, in the morning and in the afternoon, helping with the management of the site. The charge of the shelter passed to the municipality, the school personnel were gradually able to spend more time on their proper work, looking after the students, and operating the schools.

Several days after the disaster, foods and relief supplies began to arrive. At that time students and graduates of our school made a great contribution to the running of the refuge site: they helped to prepare and distribute foods, and voluntarily cleaned lavatories.

3 Confirmation of safety of the students and the staff

On the day of the disaster, when we confirmed the safety of the students, we could not know the whereabouts of around half of them. We made every effort to confirm their safety, visiting their homes and the refuges. Also we strove to make sure of safety of the school staff who were on child care leave, and those who had finished their work and gone home. The confirmation was fraught with difficulty because cellular phone service was disrupted, the shelters were spread over the school district, and some students took refuge far from the school. As it was difficult to obtain gasoline, we visited students' homes on foot or by bicycle. We managed to confirm the safety of all students on the fourth day after the earthquake, and of all personnel on the sixth day, which relieved us greatly.

4 Care for the students living in the shelter

From March 14 we gathered in the morning the students living in our evacuation site and held a meeting. There we took together light exercise such as stretching and playing catch, to deal with stress and to keep regular hours. We set up a bulletin board in the gymnasium to communicate with the students.

5 Graduation and closing ceremonies

On March 15, the city Board of Education announced the date of the graduation ceremony and the closing ceremony. On the next day, we drew up the notices of the two ceremonies, gathered the students to school, and distributed the documents to them. For those who could not come to school, class teachers went to their homes or shelters and handed them the notifications. On March 22, we held the graduation ceremony, simplified, with neither guests nor first and second year students, in the all-purpose room (instead of the gymnasium, original place of the ceremony, then allotted to house the evacuees). On the 24th of this month the closing ceremony took place, and then we finished the 22th school year of Japan's current Heisei Era.

4 Engagements Aimed at School Reopening

1 Care for the students during suspension of classes

We expected the suspension of classes would drag on, and were concerned that the students wouldn't be able to keep up their regular habits, and that their uneasiness provoked by the disaster might worsen. So we decided to resume school club activities, suspended after the earthquake, from April 4. We even engaged as acting advisers the staff newly transferred to our school, and then all clubs resumed their activities. Making full use of limited spaces in the school grounds such as the yard, the student lively participated in their club activities, which brought back animation to school. Some clubs visited shelters and did voluntary work such as care for the elderly people. The evacuees thanked them.

2 Arrangements for the entrance ceremony

On April 6, we found out that one more new student was going to enter our school, so we took a flexible measure on the structure of classes, and quickly reorganized classes, teaching schedule, and division of school duties. We decided that the entrance ceremony would take place in the all-purpose room, and that the ceremony be simplified because the room was small and not much time had passed since the earthquake and tsunami. Unable to directly hand invitations to the new students' parents and guardians, we sent them the letters through the students who came to school for club activities. We also asked Omore Elementary School for help. For the sake of the new students to whom we couldn't deliver the invitations, we posted the notice at the entrance of the two schools, and on the bulletin board of the shelters and the neighborhoods. We asked the heads of neighborhood associations to circulate the notice.

We held on April 11 a parents and guardians' meeting, and got their consent to put off the school excursion scheduled for May until the second term or after.

3 Preparations for the new school year

On April 18, just before the opening ceremony, it turned out that temporary houses were going to be built all over the schoolyard: we had to start the new school year completely unable to use for school activities neither the yard nor the gymnasium, which was housing victims. As we needed to secure spaces for physical education classes and club activities, we requested Omore Elementary School to let us use their facilities for a limited time. Also we decided to make use of nearby empty spaces to cover the shortage of places. Before opening the school year, we inspected the school-commuting roads because we were concerned about their safety, and we drew up a hazard map in the school district to prevent accidents when the students go to and from school.

4 Beginning of the school year 2011

We held the opening ceremony and the entrance ceremony on April 21, two weeks late, and started the school year 2011. Restoration from the disaster was central to our school management for this year. We considered that the most important is psychological care for students, so we asked that school counselors and clinical psychologists be sent to school as long term as possible in order that they could continuously give counseling to students. Also we had the counselors give lessons on stress management and so forth. And we asked a care worker, who was in our evacuation site and had experienced the 1995 Great Hanshin and Awaji Earthquake, to give lessons in which students thought about life. In addition, dispatched retired teachers helped us in support of teaching and in the ensuring of safety in school activities. And we tried to provide our students with various occasions to relax and enrich their spirits, such as performances by musicians, dance groups and athletes who visited stricken areas.

We allotted for physical education classes two consecutive periods in the afternoon so as to reduce the time lost when we move to Omore Elementary School to use its facilities. We also hold classes in the empty spaces for our activities. We incorporated in our course of study volunteer activities in order to contribute to the restoration of the community.



A physical education class in an empty space.



Care for the aged in a refuge site. Appeared in the Newspaper Kahoku Shimpo.



Resumption of club activities, in remaining spaces in the school.



Beginning of construction of temporary houses in the schoolyard.



A class on stress management.

5 School and Local Community Cooperation

1 Cooperation with the community

We totally cooperated with the community in running the evacuation site. In addition to the gymnasium used to house the evacuees, we offered the locker room, study rooms, and the pantry to put support resources in storage. We used the sickroom in common with doctors dispatched to treat the victims. The art education room was offered as the waiting room before using the shower room. We transferred from the study room the large liquid crystal TV onto the stage of the gymnasium, so that the refugees could get information.

Local people donated used uniforms, sportswear, schoolbooks, and other things to aid students who had lost these items in the disaster. And the heads of neighborhood associations helped us a lot, circulating letters from school among the parents and guardians, and so on.

2 Collaboration with local people in school events

We conducted an earthquake and tsunami drill with those evacuated in our school, to raise awareness of the community concerning disaster damage prevention. We designated the space in front of the gymnasium as the primary place of evacuation, and as the secondary the all-purpose room on the second floor of the school building, and we confirmed the escape route and how to reach these places of refuge. Also members of the local fire station showed us how to behave in case of tsunami, with catchwords such as “Tsunami Tendenko⁴.” We also held a fire drill with students’ parents and guardians to call their attention to fire in their homes.

On the occasion of the “Omoso Community Friendship Meeting,” we collaborated with the community-based sports club “NEO”. To promote friendship with the community we invited to the meeting local people and residents of temporary houses to experience new sports. On the field day, we included in the program a competitive event between neighborhoods, and an event whose participants were elementary school students, so as to make the school event open to the community.

⁴ Folkloric slogan transmitted among the inhabitants on the Sanriku Coast of Iwate Prefecture. Means “Run just for your life in case of tsunami, that’s the best way to save as many lives as possible.”

6 Issues and Prospects

1 Present issues to be dealt with

The evacuation site was closed in mid-September, and the gymnasium became available for our school activities, while it seems that the temporary houses will remain on the schoolyard for the time being. Our outdoor activities are restricted, and we have to secure places of activity and to figure out ways of teaching so that our education can be as usual as possible.

At the beginning of the new school year, we perceived uneasiness and agitation among the students, and there was something unsettled in the school atmosphere. Supported by many people, we have been providing psychological care for the students, and now they seem to be getting composed, but it still isn’t enough. We will need to continue for a long time taking care of our students’ emotions.

2 Prospects for rebuilding

Through the experiences of this disaster we learned how important it is to raise constant awareness of disaster damage prevention with a mind to a big tsunami. We have to pay special attention to education for disaster damage prevention with the help of the disaster damage prevention center, and the municipal crisis management division, etc. And the idea of ESD (Education for Sustainable Development), whose aim is to encourage students to live constructively in harmony with the community, we consider very effective in carrying forward the rebuilding of the school and the community. We powerfully continue our ESD activity, “Sports as Culture,” in collaboration with Tooin University of Yokohama.

After the earthquake and tsunami, we received from inside and outside Japan numerous support materials and encouraging messages. Each of them cheered us up, and still gives us energy to rebuild our school life. We are very thankful for that. We grapple with the task of rehabilitation with all our strength, and while making the most of what we have learned from the disaster, so as to restore liveliness in the school and the community. That’s our grateful response to all the assistance and encouragement.

What is Required For Us to Rise Up from the Great Eastern Japan Earthquake

ONODERA Yuichi, Principal

1 Pre-Disaster School Overview

Niitsuki Junior High School has 138 students and 22 teachers. The area of Niitsuki Junior High School was newly created in 1999 from the area of Shinjo junior high school and Tsukiritsu junior high school. The area is located in the western part of Kesennuma City. And the size of the area covers 43 percent of the city. One student in five goes to school using buses because the school area is quite large. Tsukiritsu area is in the northern part, Ochiai area is in the western part, and Shinjo area is in the eastern part. In recent years, Shinjo eastern area is growing as a newly developed residential area. That area is the only one area where there was no damage by the tsunami of the East Japan Great Earthquake on March 11, 2011. However, 16 temporary houses were built in the area, and 560 people are living there after the disaster. Six students moved from other schools to this school.

2 Immediate Post-Disaster Situation

1 Conditions just after the disaster

- ① March 11. (The main shock) Both in the staff room and the classroom, many goods on the desk scattered on the ground. Also, large numbers of cracks were found in the wall of outside of the school building. There was no other outstanding damage.
- ② April 7. (Biggest aftershock) Window glass of classroom 3-1 was broken on the third floor. Additionally, some cracks were found at the floor of gymnasium and concrete near the school.



2 A state of disaster of student and staff

- ① All students were safe. As for the families of students, there were one student who lost his father, and one student who lost his grandfather. The house of a student who attending school from Kaijo District (near the Saichi Station) was flooded and became partially destroyed.
- ② All staff were safe.

3 Condition of area by the disaster

- ① There were no big damage in the gymnasium. So we set up a place of refuge. Around 250 people were in the refuge on March 11, the day of the disaster. And 70 people of the refugees were inhabitants and the staff of a home for the aged named 'Enchoen'.
- ② The area of Niitsuki escaped from the damage of collapses of buildings, tsunami, and fires.

3 Immediate Post-Disaster Responses, and the School's Role

1 March 11, 5 p.m.

- ① We set up a place of refuge in the gymnasium. School staff and students brought some goods to live safely from a storehouse in the gym. The goods were some blankets and rice of emergency provisions, and plastic containers and an electric generator.
- ② Many people took refuge in the gymnasium centering on local residents and the inhabitants and staff of a home for the aged people named 'Enchoen'. The maximum number of refugees was 250 people. We separated the gymnasium into a space for local residents, and one for the people of 'Enachoen'. We distribute blankets and set up oil stoves. Also we set up an information office and prepared a notice about personal safety and put it up on the wall.
- ③ We put fuel in the power generator. School staff improved and wired a light bulb, an extension cord and a socket found in an art room. In consequence, we maintained the light around the entrance and bathroom.
- ④ A bathroom of the gymnasium and for a wheelchair could only be used. We made a rule of how to drain feces. And also, we restricted the use toilet paper and indicated not to flush.

2 March 11, 7 p.m.

- ① We held a temporary meeting. We could use gas in the homemaking room, and a water tank still remained. We distributed alpha rice which was cooked by women staff and refugee students. Management of the gymnasium was taken charge by our men staff.
- ② Much backup like blankets reached us from Houganji temple and local residents. So we distributed those goods to the refugees.

3 March 11, 9 p.m.

- ① Seventeen staff stayed in the gymnasium and responded to refugees.
- ② We borrowed an electric generator from 'Enchoen,' and started a jet heater to keep off the cold.

4 March 12, 8 a.m.

- ① Two men from the municipal office arrived at the gymnasium and cooperated with school staff. We found that the Shingetsu kitchen neighboring the junior high school was possible to use. So, staff of a community center and a school dietitian started to make food. They first boiled rice which was kept in the kitchen and brought them to the of homemaking room and made many o-nigiri (rice balls) to eat. On the instructions of staff of the city, we decided to make 1,000 o-nigiri a day. Women of our staff, refugees, students, and graduates made o-nigiri and men took charge of carrying rice.
- ② We used water to the end. So, we maintained water for the bathroom from the house of a staffer who lives near the school. Also, we borrowed tank from the elementary school. Men staff started traffic control in order for emergency cars and water supply trucks to pass along the road smoothly.

5 March 12, 9:30 a.m.

- ① The principal went to the Board of Education to report on the situation. And we decided to use the car of the principal as the emergency car of this school.
- ② Many backup resources came, including blankets, from our district. City staff coped with these resources.
- ③ Some food or frozen food also reached the school, but we refused this food due to considerations concerning food poisoning.

6 March 12, 6:00

- ① People from Shikaori district took refuge in the gymnasium. Shikaori district was under water all day long. Public health nurses and our nurse teacher responded to them. Their condition gradually recovered.
- ② The large-sized generator which we had borrowed from Enchoen broke down. Some refugees and city staff tried to fix it, but it wouldn't work again. We couldn't use the jet heater any more.

7 March 13

- ① A tsunami advisory was called off.
- ② Refugee from Enchoen went back to the institution.

- ③ We used all water in the water tank, so the water supply went down. We asked city staff to pour water in the tank using a fire engine. After that, there was much water poured in until the water supply recovered.
- ④ At night, a aged person with a cognitive impairment caused a panic in the gymnasium. Women staff coped with him, and the situation returned to normal.

8 March 14

- ① Rice balls reached the school from the residents association. We established connections with them.
- ② The principal of the elementary school and teachers in the same school district started to help with the distribution of rice.
- ③ The school staff looked tired.
- ④ At night, school staff and four city staff held a temporary meeting. We confirmed about the management of the temporary residence. The school side also confirmed about organization of the office, management of temporary residences, distribution of rice, and instruction of traffic.
- ⑤ We said that school staff whose houses were safe could return to their homes and take a rest.

9 March 15

We restricted the use of the men's toilet in the gymnasium. The reason was that purification pump might cause a backflow of water. Men staff set their toilet outside of the gymnasium. Women started to use the toilet in the community center.

10 March 16

- ① City staff who helped with management of the temporary residence became seven. persons
- ② City staff and school staff cooperated to distribute clothing which was delivered as backup supplies.
- ③ Niitsuki district organized an 'O-nigiri team'. They made a rule of who would be on duty making rice balls.
- ④ School staff entrusted the management and distribution of rice to city staff and some volunteers. Instead of that, school staff worked on their original duties, such as making school report cards and preparing for the graduation ceremony.
- ⑤ Almost all refugees from the Niitsuki district went back to their homes by the evening.

11 March 17

- ① At 4 p.m., cell phone use became available because an outside broadcast place of NTT DoCoMo was set up in the area of the school.

12 March 18

- ① At 10 a.m., electricity and telephone services became widespread. Telephone inquiries from many people concerning refugees reached the school.
- ② Now 50 people were temporarily living in the gymnasium.

13 March 22

- ① The place where rice balls were made was moved to the Niitsuki citizens' community hall from our homemaking room. The support system was scaled down in our school. We lent a water heater to a facility that did not have a supply of hot water.

14 April 7

- ① In the morning, 15 school staff took part in recovery work of Shishiori elementary school. They cleaned and washed the school.
- ② At 11:32 p.m., the biggest aftershock occurred. School staff who were staying in the school checked whether the school was safe or not. The glass was broken in room 3-1. Although a power failure occurred, all refugees were safe.

15 April 8

- ① School staff who were staying in the school rechecked inside the school. There were some cracks in the floor in the gymnasium and concrete around the schoolhouse. Cracks at the back of the school were getting worse.
- ② On the day all students were to come to school, we confirmed the damage status. However, there was no major damage.

16 April 11

We finished making o-nigiri and some dishes in the Niitsuki cooking space and the Niitsuki citizens' community hall. Making rice balls was entrusted to local people.

17 April 12

- ① We improved the system of accommodation. From April 13, we drew up the duties. For holidays, we decided to take turns. Women staff would work in the daytime, men staff at nighttime.
- ② The school made arrangements with city staff about places for refugees.

18 April 16

Following instructions from the city, 48 refugees who originally stayed in Toryo high school moved into our school. The total number of refugees became 78 persons.

4 Engagements Aimed at School Reopening

1 March 17

School staff visited all student homes with the information about the graduation ceremony. And teachers encouraged their students.

2 March 23

The graduation ceremony was held not in the gymnasium but in a multipurpose hall, because the gymnasium couldn't be used. All graduates attended. The ceremony was very moving. Only members of the student council attended from the first and second school grades (of three total grades).

3 March 24

The ceremony of completion of grades was held at the multipurpose hall.

4 April 8

This was a day when every student had to come to school. We read aloud the message from Japan's Prime Minister. We were told that all students of Shingetsu Junior High School were safe, that students who had suffered from the disaster were moving into our school, and that we had to think about what we can do and how to be active.

5 April 9

The number of students who took part as cooking volunteers increased. Also, there was an increase in help in cleaning up the houses of relatives.

6 April 11

Study consultation and club activities were restarted. From this day to April 20, students studied and reviewed the textbook units which remained before the disaster under each subject's teacher. Also we talked directly with some students. After that, we restarted club activities (all in the ground or in each classroom). We made an effort to help students become cheerful and motivated. Students regained their serenity of mind and a sense of security by coming to school every day. The rhythm of life was gradually improved.

7 April 21

We held a school beginning ceremony in the multipurpose hall. Every student came to school looking cheerful and positive. Students were very friendly to students entering our school from other schools.

8 April 22

- ① We held an entrance ceremony in the multipurpose hall. Only the executives of student council could participate in the ceremony, because of the size of the hall. We felt strength and confidence from strong welcoming speeches and the singing of school song. New students looked relieved.
- ② We instructed that we had to be careful in our words and actions to parents and guardians who had moved into our school because of the disaster.

5 School and Local Community Cooperation

1 Farewell Party for Japan Self-Defense force

May 20, 8:15 a.m., we held a farewell party for the Japan Self-Defense Forces. They create a base in the place where a pool was to be constructed near Niitsuki Junior High School, and worked actively to rebuild Kesennuma. They supported our safety and rebuilding in many cases. A leader said to us that, “We are all concerned for the recovery of Kesennuma city.” It was first time for us to feel that the Forces are very close to us.



2 Fund Raising

Community of welfare of Niitsuki Junior High School started a fund-raising campaign to rebuild the city from the disaster. They did the campaign in the entrance of the school from May 24 to 27. They collected 18,422 yen. It was result of student's goodwill, and all money was contributed to the Japanese Red Cross Society.



3 Music concert of the Japan Self-Defense Force

On June 28, the 3rd term, there was a music concert of the Japan Self-Defense Forces. They came from Akita and played wonderfully. They said they wanted people in Kesennuma to be more cheerful by their playing. All were indeed cheered up, including people taking refuge in the gymnasium.

4 Workshop for the children who had suffered from the disaster

On July 9, after school, a lecture meeting by PTA was held in our multipurpose hall. The speaker was Kazuto Noguchi, professor of the special supporting center of Miyagi Education University. His purpose was maintaining children's mental health. The participants numbered around 70 people. In the seminar, there was a 30 minutes workshop which was very instructive. The content was how to best care for family and children who had suffered from the disaster. Professor Noguchi said that stress is a condition that disrupted the balance of bodies and minds in an unacceptable situation. Although the Niitsuki district was not damaged by tsunami directly, there are many cases where the parents' companies were damaged, or where relatives had to take refuge from their homes. Those cases caused uncomfortable feelings because these were not normal situations for them. Adults can ease their minds via some experience and knowledge, but children are trying to recognize some pain of adults without any words. I felt that we have to make times and places in our school and homes where children can talk their true feelings and recover well from their issues and problems. The important thing is listening. It is important to accept children's words directly. We should not say, “This way is going to be better,” or “That's not true.” We should say instead, “I see. I didn't know you were feeling that way,” or “That's right.” We have to recognize their feelings. Also, we learned that if children say, “I am having a difficult time,” we should sympathize with them. We instructed school staff to make the best use of these facts and stories.



5 Representative meeting of the junior high schools

On August 18, we held the representative meeting of the junior high school, in which student council members from 13 junior high schools in



Kesennuma gathered together and brought their own topics to make the meeting complete. The theme was, “Actions for rebuilding each school.”

6 Collaboration on the sports day

In Niitsuki Junior High School, many people lived in our gymnasium from March 11 to October 11, 2011. At one time, around 200 people were residing there. Refugees participated in the sports day on September 3.

7 Evacuation drill with local people

On November 7, we held an evacuation drill with people living in the gymnasium. We promised each other to live strong lives even though we had a disaster.

6 Issues and Prospects

It is too late to wait for someone to move forward. We can't protect our children without active actions by the school and the community. The appointed task for a school is huge, because the school is going to be major temporary residence. However, the only way to complete the mission is to hold drilling at regular intervals with school, community, city hall, women's association, firefighters, and police, and to make improvements aimed at avoiding the effects of a disaster. We have to think of the importance of connections with the community.

These are the words that a principal always says in an evacuation drill: “If the earthquake occurs, flee to a site 15 meters above sea level with those around you.” This is a mutual agreement among the people living in Kesennuma.

Moving from Disaster Responses to Normal Educational Activities

KOMATSU Yasuo, Principal

1 Pre-Disaster School Overview

1 The situation of the district and the school

Karakuwa district is located in Kesennuma City, in north-easternmost part of Miyagi prefecture, also in a peninsula which has a sawtooth (rias) coastline. This district is a part of Rikuchu Kaigain National Park, Its beach is called Kukunakihama, and is famous for “singing sand.” The park has some huge, strange-shaped rocks. The beach and these rocks represent the wonderful scenery, the beauty and grandeur of nature. As the center of Karakuwa district is a mountainous region, while local people organize villages along coastline. The sea surrounds the district, and the coastal fishery and fish farming have prospered.

Karakuwa Junior High School is located in the center of Karakuwa Peninsula, at a height of 67 meters. The number of students is 193, with 10 classes, and 24 teachers and staff at the time of earthquake. Students are cheerful, gentle and obedient to their teachers. They try hard to do many kinds of activities with sincerity. They are gradually motivated to voluntarily work hard for the school sports festival and cultural festival. Their attitude toward school lessons is already established, and they study in a good environment. Many of the students’ families were fisherman in the past, but the number is slowly decreasing. Occupations of their parents are fishermen, workers of fish farming, office workers, and public employees. The number of students with both parents working is increasing; therefore their grandparents take care of their homes instead during the daytime.

2 Distinctive educational activities

- ESD (Education for Sustainable Development), UNESCO school, the Period of Integrated Study (especially related to energy education and experimental activities)
- Activities called ”The health of teeth and the mouth,” with cooperation of school dentist
- Interchanges between a welfare center and the school
- Clean-up activities conducted by a student council
- Reading period every morning

2 Immediate Post-Disaster Situation

1 March 11 Friday

- 14:46 (2:46 p.m.) The earthquake occurred. Third year students had already left after school lunch because the graduation ceremony would be held the next day. First and second year students had been preparing for the ceremony. Teachers told students to squat down on the floor or go under the desks to ensure their own safety. The school broadcasting system did not work because of the blackout. When the earthquake nearly stopped, teachers in the staff room run to the classrooms and the gymnasium, called out to take refuge, then students followed their instructions. Students came to the schoolyard as their first place for refuge. Three teachers made sure that no one was left in the passage under the stage of gymnasium or classrooms in all floors, after that, they also came to the schoolyard. The teachers confirmed that all the first and second year students had finished taking shelter.
- Around 15:00 Huge tsunami warnings were issued. We could hear the emergency wireless broadcasting telling us to take



refuge. We collected information through the TV or radio in the teacher's car or "1 seg" (the service for watching television programs in high-definition on portable terminals like mobile phones) of their mobile phones. Around 100 people (including students' parents, community people, and people who had come to Karakuwa district for business) gathered in the schoolyard. I instructed teachers as a principal not to let students go home during the huge tsunami warning, and to wait at the grounds because aftershocks were occurring frequently, and thus a huge earthquake might again occur. Teachers picked up blankets from the nurse's office, then distributed them to the students.

- Around 15:15 The nursing teacher received an e-mail from one officer who was being sent to Miyagi Prefecture Minami-Sanriku Education Office (located in Minami-Sanriku town). He said that he took refuge safely at Shidugawa Junior High School. I confirmed the safety of all school staffers.
- Around 15:20 A huge aftershock occurred. Several students got upset. The nursing teachers and class teachers tried to calm them down.
- Around 16:00 Parents who had just arrived at our school told that the tsunami had attacked the Tadagoshi district and Yado district. Moreover, the tsunami was coming near the Nakai Elementary School.
- Some school staff went to Isaribi Park (located at the hilltop near our school) by car to try to check the situation of the beach and the coastline; however, it could not be seen well.
- Many of the parents who came to our school asked to pick their children up to take them home.
- I made an arrangement with the Vice-Principal, the curriculum directors, and the heads of grades. They decided not to hand the students over to their parents until all alerts were called off. If there are some parents who could not accept the decision, teachers tried to persuade them or dealt effectively with the parents. We let all staffs know the decision. We told the parents that we could not pass their children over until we made sure of their safety, because the huge tsunami warning was still being issued.
- Around 16:30 Students warmed themselves in the cars of school staff or their parents because it was cold that day.
- Around 18:00 I instructed school staff to let students (only those whose parents came our school to pick them up and whose house was on the hilltop) go home. I also ordered that they wrote down their names on a list when they go home.
- As aftershocks occurred intermittently, 33 students and 100 local community people continued to evacuate at the school grounds. We prepared tents and 18-liter square cans for outside cooking. The tents were all covered with a curtain for windbreak, then we warmed ourselves by burning square pieces of wood in the oil stove and the cans.
- Students stayed one night in two buses (belonged



to Miyagi-Kotsu company) which came to the schoolyard to evacuate. The bus drivers cooperated with us.

- It snowed at night, and became bitterly cold. The sky seen from the schoolyard (in the direction of the center of the city) glowed red because of the fire, and we heard the sound of explosions in the distance. The phone line had gone dead completely. However, around 23:00, we knew the state of the fire in the city through “One Seg” of a staffer’s mobile phone.

2 March 12 Saturday

- We confirmed that staff would manage the refuge site. The sky in the direction of the center of the city was still red, and we smelled heavy oil. The school staff confirmed the situation of the neighborhood.
- We gathered the school lunch food and the foods which community people offered to us. We might be able to manage all foods for a week. We offered rice porridge to refugees as breakfast by using the food.
- One of the two buses which were in the schoolyard left for the office in the city.
- The number of refugees was increasing because it was said that the fire in Kesenuma Bay was threatening the Magurodate district.
- Students who could not go home, and 100 refugees, moved into the school building. We could not confirm the safety of third year students because we were occupied with the management of the refuge site and dealing with students and refugees. We could not contact the school board of the city; therefore, school staff themselves provided refugees with the meals.

3 After March 13 Sunday

- Class teachers confirmed the safety of third-year students and other students who were absent from the school that day on foot or by using bicycles which we borrowed from some neighbors near our school. They could confirm that all of the students were safe.
- The road leading to the center of the city managed to be passable, so staff went to the school board and reported the situation.

4 The situation of students and school staff, and the damage of the school

- All students and staff are safe.
- One student’s mother is missing.
- 37 students’ and four staff houses were partially or completely destroyed, or flooded.
- The ceiling board of the audiovisual room was partially broken.



- In the library, there is an opening between the sink and the wall.
- One of the windows in the corridor on the first floor was broken.
- The grounds of the parking for school staff were cracked.



3 Immediate Post-Disaster Responses, and the School's Role

1 Dealing with refugees

- As we frequently suffered tremors after the earthquake had occurred, 33 students and about 100 refugees continued to shelter at the schoolyard. We pitched two tents for the management place and the refuge place and covered curtains around the tents for windbreak. To protect refugees from the cold, we carried oil stoves from the gymnasium and used them. Ones were borrowed from the parents for the graduation ceremony and the others were oil stoves of the school. We also carried 18-liter square cans for outside cooking, which had been used during the integrated study periods, then burned square pieces of wood for warmth.
- We got two generators which construction coordinators who sheltered to the schoolyard offered to us, and got the two lights for the construction (we borrowed them from the parents). We could use the school heater thanks to the generators.
- 33 students who could not go home stayed overnight in Miyagi-kotsu buses with the heating working as offered by drivers. The school staff and parents stayed in their own cars or the tents.
- As community people offered snacks and drinks, we distributed them to students and refugees. We also distributed blankets that were offered by local people or were carried from the school nurse's office.
- The school staff were divided into four groups. We decided that each group would work in shifts of four hours and deal with students and refugees.
- We confirmed the foods for school lunch and the food which community people offered to us. We could manage all foods for a week. From March 12, Saturday, taking the lead in the work, dieticians, school-lunch cooks, and

caretakers provided students and refugees with the meals in the kitchen of the home economics room. They offered breakfast, lunch and dinner. As the number of the aftershocks decreased compared to yesterday, students and refugees moved into classrooms on the first floor. At night, the corridor and the school grounds were lit up with the two lights using generators as power supply in preparation for the refugees from huge aftershocks. The school staff ladled water in a pool into buckets with students for flush toilets, and then we put buckets in every toilet.

- The school staff worked on six-hour shifts (7:00~13:00, 13:00~19:00) and managed the refuge site.

2 Cooperation of the City, the City School Board and The Institution of Relief or Support

- On March 15, Tuesday, food was delivered by the Karakuwa Branch Office and Kwarakuwa Education Center. Around 18:00, a person in charge of the Division of City Crisis Management came to our school; he checked the situation of the damage of the school and the situation of the refuge place.
- On the morning of March 16, Wednesday, officers in the city library was sent to our school for the support of the refuge site. They dealt with refugees with us. The assistant director of the City School Board came to check necessary goods and the situation of the refuge place and of the refugees. In the afternoon, Kesenuma Healthcare Center, Teikyo University's School of Medicine and Karakuwa District Social Welfare Council came to our school to check the situation and to give support. We told the situation to them and requested a supply of necessary goods. The goods (like foods) were delivered from the Karakuwa Branch Office, and then the school staff distributed them to refugees. Water supply tanks were brought in the school; after that, water was supplied by the water truck three times (morning, afternoon and night) a day.

4 Engagements Aimed at School Reopening

1 Investigation of the situation of the students, and the notice of the graduation ceremony and the completion ceremony

On March 14, by the instruction of The City School Board, we decided to hold the graduation ceremony on March 22 at 10 a.m., and the completion ceremony on March 23 at 9 a.m. We posted notices at Karakuwa City Branch Office, Karakuwa Elementary School, Nakai Elementary School, and shelters in this district. The notice said:

- The ceremony will be simplified.
- Parents could attend the ceremonies in ordinary dress.
- Students could go to school anytime from March 15 to March 18.

We heard from students the damage and their present address.

2 The move of the refugees

Around 9:00, March 20, we discussed how we should treat the shelter place. We decided to let refugees move to other refuge places in the district by the end of March because we would like to accept students smoothly by the new school year, and school staffs continued to manage the refuge site though other refuge sites had room to accept the refugees.

3 Preparing for the new semester

On April 3, 20 refugees in our school moved to other refuge sites in the district, so we finished using the school buildings as the refuge place. From April 4, we could prepare for the new school year. We had meetings, cleaned classrooms and toilets which the refugees had used, and arranged the support goods. We decided to let students go to school every Tuesday from April 5. We heard the situation of their homes and played dodge ball for their mental relief. We finally could hold the opening ceremony on April 21 and the entrance ceremony on April 23.

5 School and Local Community Cooperation

Our school (and the district) was isolated because the electricity was cut off and mobile phones went dead immediately after the earthquake, and the tsunami cut off the roads which led to the center of the city. The blackout and the water outage continued until early March. Our school was a secondary shelter; however, we did not have enough drinking water, emergency foods, blankets and medical goods. In such a situation, school staff managed the shelter and confirmed the safety of students, and the community people supported us;

- Provided with food, drinks and blankets by parents and neighbors from the day of earthquake.
- Offered large quantities of fishery products by the fish processing facilities.
- Offered bicycles by neighbors near our school to confirm the safety of students.
- Offered generators and lights for construction by neighbors.
- Offered gasoline from a devastated gas station.

We asked refugees to move to other shelters in the district for resuming our school. Finally they understood the real situation of our school and finished the moving by April 3.

I believe that as the local community people have strong feelings for our school, so successive principals and teachers promoted education activities where they and neighbors united and fostered mutual trust. That led to understanding and the cooperation toward the position of the school and our idea.

We would like to make our school to be trusted by the parents and the local community and advance together with them from now on.

6 Issues and Prospects

1 The psychological care of students and health management

After the disaster, to know the mental and physical status of students, the nursing teacher carried out a questionnaire three times, titled “Mental and Physical Check.” intended for all students in our school. Moreover, classroom teachers watched the changes of students. As of now, there is no student who needs special psychological care, but from now we have to keep watching their changes with the cooperation of nursing teachers and school counselors.

2 The change of family environment and economic situation

The situation of students who do not live their own home (as of January 10, 2012) by the disaster:

4 students live in the house of relatives or an acquaintance in the school region.

2 students live in rented accommodation in the school region.

16 students live in temporary housing in the school region.

2 students live in temporary housing outside the school region.

38 students newly receive school expense subsidies because their parents lost jobs or other decrease of income.

Improvement of the life environment and economic situation will never progress without the recovery of the region, local economy, and employment. We are concerned that the gap between affected students and non-affected students will widen in terms of life and economy.

3 The enhancement of disaster prevention education, and the creation of guidelines of set up and management of a shelter

If students are in our school, they can take refuge with the instruction of teacher; however, if they are on the way home (or to school) or at home, we cannot do anything. Therefore, we need to enhance disaster prevention education that includes responding to a nighttime earthquake. We need to compile the guidelines for setting up and managing a shelter. In such a case, we have to clarify the procedures and division of roles by having meetings with the local community and the government. Karakuwa region is expected to be “an isolated land,” with the roads cut off by a tsunami like the earthquake this time. If an earthquake occurs at night or on holidays (at a time when there is no staff in our school) and tsunami warnings are issued, school staff living outside the district will not be able to go to our school. We have to suppose such a case, and think about countermeasures involving ties with the local community and the government.

Without constructing temporary housings at the schoolyard, since the opening ceremony in April, though we have had to change the date of some school events and plans regarding integrated study periods, we have performed normal education activities. I greatly appreciate the help given by all of you. and we will promote together education activities for fostering “Students who are living life with dreams and motivation.”

Causing a Breeze of Joy to Flow from the Foot of Kiritachi Mountain

YOKOYAMA Hidetoshi, Principal

1 Pre-Disaster School Overview

Our school has only 32 students (nine first grade students, 17 second grade students, and six third grade students) and 13 teachers in total, and it's equipped with a common meal-service kitchen (The principal serves as head and the assistant principal serves as assistant of head. There are five other cooks and a clerk.).

Geographically, our school is in the north-eastern end of Miyagi prefecture, and it's surrounded by the Pacific Ocean Hirota bay (east), the Kesenuma Shishiori region (west), Karakuwa peninsula (south), and Takata City in Iwate Prefecture (north). In addition, our region has plenty of beautiful nature and is famous for its rias shoreline (a type of shoreline which has snaky turnings).

The school area is organized from three regions from north prefectural border, "Ohsawa" "Tate," and "Tadakoshi," and Route 45 runs north-south through the center of the school district. The Kiritachi tunnel was opened in December 2010 as a part of the Sanriku motorway, and it became an important route.

The number of households is 563 and the population is 1,612 (March 31, 2011). There are many households which three generations are living together. The bonds of families and regional connections are strong; children can grow up in the great atmosphere where an effort is made to raise up children together in this region.



The view of Koharagi Junior High School

2 Immediate Post-Disaster Situation

【Conditions right after the disaster】

14:46 (2:46 p.m.) The earthquake happened. Its magnitude was 9.0 and the center of the shaking was in the offing of Miyagi prefecture. The only thing that we could do was just try to stand during the strong (the sixth level of seven in Japanese seismic intensity) and a few minutes of shaking. The day after the disaster the graduation ceremony was planned, so the third grade students had already finished classes in the morning, and the other junior students decorated the ceremony hall and classrooms. Some things fell down from the chest and more, some TVs or desks fell down. Moreover, the earthquake came during the maintenance of the disaster-response devices, so emergency announcing devices were unavailable. However the shaking lasted long, and we thought staying inside of the buildings was dangerous. Therefore we made students and teachers escape from the buildings and come out to the school ground (ts height from the sea level is 70 meters), using our natural voices or hand-held speakers.

15:15 After escaping to the ground, we observed the condition around us in the cold, snow-falling afternoon. The neighborhood people also came to our school, so together we stayed at the ground. We noticed that a big ebb tide which flowed to the offing from the Hirota bay like a river and it meant a big tsunami would come soon. Then we moved to the center of the ground because we didn't want students to see the tsunami and we assessed that there were no danger of landslides.

15:20 Evacuees told us that the first attack of tsunami had come. After we confirmed that the frequency of aftershocks became fewer, we clean up inside of our gym and set up an emergency shelter. We directed school staff to manage students and support the operation of the shelter. And we also told students to do volunteer activities there.

15:30 Inhabitants who came to neighborhood elementary school and staff of the school together came our site. The number of evacuees inside of the gym were around 250, and that of inside of the cars at our ground were about 30. In the low temperatures and repeated aftershocks, we were in danger. Unfortunately, there weren't any stocks of foods, heaters, blankets, and the supply of electricity and water was stopped.

16:30 We reconfirmed the health conditions of our students and told people in the site to stay there. We permitted them to use bathrooms in our school buildings.



Self-Defense forces helicopter on the ground



Osawa area



Tadakoshi area

20:00 We thought we can't keep our health and safety in the gym. Then we moved our cars to the center of the ground and directed all of the students to ride staff's cars and to stay warm until the next morning.

【Damages of our region】

In terms of the damages caused by earthquakes, landslides and cracks often happened especially at the part of banking. Collapses and cracks of the shoulder of the national roads also happened a lot. In addition to the fact that some houses had completely collapsed, many of the houses had damages, such as falling of furniture, in the residential area.

The damages caused by tsunami were tremendous in two areas (Ohsawa district, Tadakoshi district of our three school districts. In Ohsawa district, nearly all of the houses were washed away or destroyed except for the houses on the hills. In Tate district, although the houses near the shore were washed away by the tsunami, relatively the scale of damages was small. In Tadakoshi district, houses which were located nearer the sea than Route 45 were swept away and the sluices at a fishing port were destroyed.

Tiles and pebbles made by tsunami and fires shut out any transportation. Moving by cars was limited to a small part of the school district and the service of electricity, water, and communication lines were stopped. It meant we were in a solitary island on land.

- Rikuzen-Takata direction... Unable to pass Route 45 shut by tiles and pebbles in Ohsawa district and Kesenuma, with a big bridge fallen down.
- Kakuwa peninsula direction... Unable to pass the roads shut by tiles and pebbles in Tadakoshi district.
- The center of Kesenuma... Unable to pass except for emergency vehicles because Route 45 was shut by tiles and pebbles or fires in Shishiori district.

【Damages of our school】

We show the damages of students and teachers in *Table1*. The table is separated into two terms because students, teachers, and staffs changed at the end of March. We also show the damages of field and buildings of our school in *Table2* ("○" means that the equipment has already been fixed).

Table1 Damages of our school members (~March 31,2011 and April 1,2011~)

term	members	enrollment	damage of human		damage of house			school expense subsidy
			members of the school	family	complete collapse	serious destruction	partial destruction	
2011 /3/31	students	32	0	1	12	1	0	0
	school staffs	13	0	0	3	1	1	
	kitchen staffs	6	0	0	2	0	0	
2011/ 4/1 ~	students	39	0	1	12	1	0	18
	school staffs	14	0	0	4	1	1	
	kitchen staffs	5	0	0	1	0	0	

Table2 Damages of our school field and buildings and the other facilities
(December 31, 2011 current)

category	part of damages and condition	fixing
school field	many small cracks	○
	many cracks and depressions at the east side of the gym	○
school building	big cracks on the both of inside and outside walls	
	many fallings of mortar	
	many damages and cracks on the ceiling	○
	many damages and cracks, and fallings of roof tiles	○
	many damages and cracks of sliding doors and window frames	○
school gym	falling of the ceilings (east and south side)	
	damages of lights	
	falling of a lot of ironware	
	fault of heating	○
facilities	falling of window frames and some damages of glass	○
	depressions of sewerage facilities	
	some ruptures of sewer pipes (kitchen, homemaking room)	○
	some ruptures of gas pipes (kitchen, homemaking room)	○



Cracks of the corridor



Ceiling board of the gymnasium fall down

3 Immediate Post-Disaster Responses, and the School's Role

We show our actions in the order of time series from right after the disaster until our school reopened. Those are written in the order of the following.

- <month day, the number of evacuee, school staffs staying at school, staffs working on holidays> article
- <March 11 280 9> Hitting of the great earthquake
- <March 12 250 8> Patrolling of school district using cars in early morning
 - Confirming that there are enormous damages caused by tsunami in Ohsawa and Tadakoshi district
 - Confirming that transportation was shut down
 - Roads to Kesennuma direction was shut at Shisiori (because of fires, except for emergency vehicles)
 - Roads to Rikuzen-Takata direction was shut at Ohsawa (because of tiles and pebbles shutting Route 45, and the falling of Kesennuma big bridge)
 - Roads to Karakuwa peninsula direction were shut at Tadakoshi (because of tiles and pebbles and depressions of roads or washed roads)
 - Collecting information by visiting houses and confirming all students' safety
- <March 13 250 9 9>
 - Coming of the educational leader of city educational committee, reporting the conditions of damages orally
 - Confirming the safety of guardians of third grade students, deciding to have graduation ceremony on March 15
 - Directing of draw SOS on the ground coming of helicopters of Self-Defence Forces and confirming the conditions
 - Setting up of a committee for evacuees in the gym, setting four school committees in our school district
 - Rental of the outside storehouse as temporary place for putting bodies
- <March 14 250 7 7>
 - Confirming the safety of all staffs (on a business trip or an annual holiday)
 - Carrying in materials by the US armed forces' helicopters (interpretation and helping for carrying)
 - Closing of the outside storehouse as temporary place for putting bodies
 - Setting clear distinctions of evacuation site and school buildings
- <March 15 200 7>
 - Graduation ceremony at multiple purposes hall, reporting the first disaster conditions report to the city educational committee
- <March 16 200 7>
 - Opening cooperative kitchen as a kitchen of the evacuation site (until April 18)
 - Carrying in materials by the US armed forces' helicopters (interpretation and helping for carrying)
- <March 17 200 7>
 - Reporting the second disaster conditions report to the city educational committee
 - Carrying in materials by the US armed forces' helicopters (interpretation and helping for carrying)
- <March 18 200 5>
 - Rental of the lunch room for the other prefectural medical group (until June 30),
 - Carrying in kerosene by Self-Defence Forces
 - Carrying in materials by the US armed forces' helicopters (interpretation and helping for carrying)
- <March 19 200 3 5>
 - Coming of the head of educational section of city educational committee, reporting the conditions of damages orally
 - Carrying in materials by Self-Defence Forces' helicopters (helping for carrying)
- <March 20 200 4 4>
- <March 21 200 5>
 - Carrying in materials by Self-Defence Forces' trucks and the US armed forces' helicopters
- <March 22 200 3>
 - Restart of club activities, borrowing a small generator from evacuation site, carrying in materials by Self-Defence Forces' helicopters
- <March 23 200 3>
- <March 24 200 3> Completion ceremony
- <March 25 200 1> Taking over coming staffs duties
- <March 26 180 1 3>
- <March 27 180 1 2>
- <March 28 180 2>
 - Extraordinarily meeting of the head of each junior high school in this area (confirming conditions of each school)
- <March 29 180 2> Farewell ceremony for transferring staff, courtesy visits
- <March 30 180 2>
- <March 31 180 3>
- <April 1 180 0> Installation of new teachers, courtesy visits
- <April 2 180 0 2>
- <April 3 180 0 3>
- <April 4 180 0> Providing electricity by a big generator, recovering of flushing of bathroom toilets (industrial water

pipe)

- <April 5 180 0> Introduction of newly arrived staff, announcement of class teachers, Coming of general section reader and sub secretary of city educational committee
- <April 6 180 0>
- <April 7 180 1> Coming of the head of Karakuwa educational center, recovery of electricity, Investigating school-commuting roads, hitting of big aftershock
- <April 8 180 0> Investigating damages caused by aftershocks, cleaning inside school buildings by students
- <April 9 180 0 4>
- <April 10 180 0 1>
- <April 11 180 0> Permissions for taking part in club activities of new students
- <April 12 180 0> Visiting homes of new students
- <April 13 180 0>
- <April 14 180 0> Rental of a health center for mental care
- <April 15 180 0> Rental of a health center for mental care
- <April 16 180 0 2> Rental of a multiple purposes hall for meeting of partial sum association
- <April 17 180 0 4> Rental of a health center for legal consultation
- <April 18 180 0> Coming of the head of Minami sanriku educational office, one-day entrance to school
- <April 19 180 0>
- <April 20 180 0>
- <April 21 180 0> Beginning ceremony of the first term
- <April 22 180 0> Entrance ceremony, observing classes by guardians, meeting with guardians

4 Engagements Aimed at School Reopening

In the difficult conditions, we thought about the best things we can do for our students. In order to start classes as soon as possible, we decided to do following things for our students.

- Understanding of dangerous points in our school areas, Ensuring of safety of students going to and from school
- Adjustment of time for club activities and school closing time
- Opening library as a study room during temporary holidays
- Restart of club activities (March 22)
- Introduction of newly arrived staffs, announce of class teachers (April 5)
- Participating in club activities of new students (April 11)
- Investigation of substitute teaching materials, cutting down on expenses (about 30% of annual expenses)
- Observing classes by parents and guardians (an extra day) and meeting with parents and guardians on the same day of entrance ceremony, explanation of disaster correspondence
- Opening meeting room in the gym as a study room of evacuation site for students of elementary and junior high school
- Early maintenance and equipment of desk lamps at the study room of evacuation site
- Active participating of evacuees in school education activities (teaching in club activities and evacuation drills)
- Application of positive support from outside of our region (school counselor from the outside of Miyagi prefecture, various events, etc.)
- Establishment of Internet home page, dispatching information such as the condition of our school and activities of students and appreciation for the support via our home page

5 School and Local Community Cooperation

Our school gym had been a shelter from the day of the disaster and school staffs had to cope with around two hundred evacuees. The neighborhood association of region around our school, called “Tate,” supported us during a few days until the supply of backup resources became stable. The office of the shelter was organized by residents’ association of Ohsawa district mainly and acted actively because most of the evacuees were residents of Ohsawa district. Therefore activities of school staff related to the shelter were mainly management of facilities and lending of materials. The kitchen wasn’t available because of stoppage of water and gas supply and sewerage. Accordingly, we could use the kitchen only for



Temporary houses on the school ground

brief cooking and storage of water for drinking.

We show the use of school facilities related to the disaster at *Table3*.

Table3. Use of school facilities related to the disaster

Purpose	Term	Open facilities
Shelter	3/11 ~ 8/05	Gym
Kitchen	3/16 ~ 4/18	Drinking water depository, Briefly, the kitchen
Goods depository	3/16 ~ 4/18	Workshop
Temporary clinic	3/18 ~ 6/30	Lunch room
Mental care	4/14 ~ 4/15	Health center
Partial sum association	4/16	Multiple purpose hall
Legal advice	4/17	Health center
Warehouse	3/16 ~ 8/05	Outside warehouse
Temporary house	8/05 ~	School ground

Consequently, we could focus on educational activities as a school. We tried to work closely with the local community by introducing our school via media and inviting local residents to school activities. Moreover, we ask them for teaching club activities and classes in order to have an active relationship with them. Meanwhile, evacuees acted very cooperative with us, such as cleaning around the school. We think it's a strong point of our region that residents regard our school as a place to have strong ties with.



Evacuation drill of the students and local people in the temporary house



Primary and Secondary unite athletic meeting with smile



For Linkage and Support, many thanks

6 Issues and Prospects

Our school could avoid direct damage by the tsunami because our school was located on a higher place (70 meters above sea level). However, we have to be concerned sufficiently that a disaster may occur on the way to school, and then we need to teach students what to do when disasters hit because our school districts face Hirota Bay. Through this experience, we would like students of junior high school to grow minds that love their birthplaces and local communities, and that are conscious about responding to disasters and more, ties with people, and appreciative minds. Now, outside places for sports are limited because both the elementary and junior high schools have temporary residences on their grounds. Although an old school field on the other side of national route became available, we worry about a decreasing vitality and sporting abilities of children. Because of the destruction of houses and unemployment of guardians, the number of students who need school expense subsidies was increasing, and the percentage changed from 0% to 46.2%. We estimate that this condition will continue for a while.

However, we also think there are things that we can teach effectively especially at a time like now. We would like to use backups actively and work closely with local communities. And then we are eager to raise students as a Koharagi “brand” with higher achievements, generous spirits, and high aims.

Tsuya Junior High School

To Recover the School Lives of Students

ABE Masahiko, Principal

1 Pre-Disaster School Overview

Kesenuma City is in the northernmost tip of Miyagi prefecture, which faces the Pacific Ocean. Motoyoshi Town, which has the district of Tsuya Junior High and combined with Kesenuma three years ago, is in the southern part of the city. The city also has the district of Tsuya elementary school and Umagome elementary school, and is at the fork point between the National Highway 45 and 346. There is the Tsuya River (a grade 2 river) running along a north-south of the city to the Pacific Ocean. In this disaster, the big tsunami went up the river about three kilometers, and caused much damage within the school areas. There are many hilly districts in the city, and 80 percent of the districts have forests and mountains. In these areas the dairy farming is so famous.

The old Motoyoshi town—having Tsuya Junior High—suggests the concept of “Creating a Town is Creating Humans.” It puts the importance on school education, therefore many buildings and equipment in seven elementary and junior high schools in the old town have been kept good for a long time.

The motto of Tsuya Junior High is to create students who learn by themselves, students who have kind hearts, and tough students. It has two classes in each grade, 149 students, and 23 teachers. In recent years, this school has put power into the “general learning” class and invited instructors from people living near the school to practice traditional music of the city. Especially since this year, 3rd grade students who mastered how to play the drum and the pipe, both of which are Japanese traditional instruments, have told the skills to 2nd grade students. In short, the school has made a system whereby senior students have taught the traditions to junior students. Their performances have been evaluated very highly, not only in school events but also from each event in the town.

This activity for development of cultural tradition was evaluated so much that this junior high was recognized as a UNESCO school in 2011.

2 Immediate Post-Disaster Situation

It was at 14:26 (2:26 p.m.), when the earthquake happened, that third-year students were on the way home for the graduation ceremony the next day, and almost all first-year and second-year students were preparing for the ceremony in the school gym, were about to compare their preparations. With the earth tremor, the gym and school building were shaking and while in three minutes there were three earthquakes. The Japanese seismic scale was six, which means very strong shaking. As soon as the quakes stopped, I (the school principal) ordered an evacuation so that the first-year and second-year students could escape from damages of the earthquake to the school ground, which was the first evacuation place. When it started to snow and the wind blew up, which led to a snowstorm, we heard a very noisy sound like construction works from the bottom of the ground. (At the moment, the tsunami seemed to happen.) The tsunami warning was issued from the city broadcasting, and it repeated the alarming to instruct an evacuation.

The aftershock became a little small, and the snow was falling strong, so I told the students again to move to the second evacuation space (the school multipurpose hall). As the school principal, I told teachers to check all students' health and asked students' parents who went to meet them to check the relationship between parents and students and to record them in detail.

In the evening, people in the local area evacuated to the gym, so we decided to open the gym as the temporal evacuation site, and 20 students and about 80 local people stayed there at the night.

In the next day, it started to be light, so I overlooked the town from



Cars and buses that were driven by the tsunami and attacked houses, and lots of debris.



1.5 km from the river's mouth: the railway of the Kesenuma line which had been on the bridge and was driven away.

the school ground. In the paddy field along with which the river runs 20 meters under the school, there were a lot of trees and debris such as house roofs with dirty sludge and a big truck lying down. The debris flowed into houses along with the river and caused destructive damages.

The schoolhouse had a lot of cracks and in the schoolyard there were many roofing tiles fallen from the school building. The gym had cracks both inside and outside the walls in the east and west side at the second floor. Some of them also had holes. But it was the aftershock that happened on April 7th, whose the Japanese seismic intensity was six, that made the outer wall slide down. Therefore the walls completely had holes.

All students were safe, but 12 houses of students were partially or totally destroyed, and four parents became victims. In addition, about 40 parents of students lost their jobs because their offices had suffered from the disaster. These numbers are expected to be increased and to influence students' decision of what they will do in the future.

3 Immediate Post-Disaster Responses, and the School's Role

1 March 11 (Friday)

Right after the earthquake, lights were cut off, so we could not get any information about the disaster. Our school, Tsuya Junior High school, was not designated as an evacuation site. But at around 16:00, people in the local area were gathering with blankets in their cars at the parking lot in front of the school gym. After that, the number of cars increased to more than 20, so I thought that there was so serious accident in the town. (I didn't notice that the tsunami attacked the town, so I thought people escaped to the place from fear of the aftershocks.)

As the school principal, I decided that I had to open the gym as the evacuation site, so I told the staff to open the gym and spread out the mats used for exercise. People who escaped from the disaster to the gym informed me that the big tsunami had attacked Eastern Japan, and that the tsunami came to the paddy fields under the school, so many residents suffered from the disaster. I told staff again to spread more exercise mats and tatamis for judo on the floor of the gym, and to carry things in the school to the gym that they could use as bedclothes. I treated three people in the sickroom who had been carried away by the tsunami and were injured. After the treatment, two of them became a bad condition, so they were taken to the hospital.

On this day the school staff stayed in the gym with about 80 people who escaped from the disaster and 20 students who could not meet their parents. The staff from the high school which stands by our school brought a room heater and a dynamo, so we turned on the lights and could use an electric heater. From the town of Iwate Prefecture, next to our prefecture, Miyagi, there was a distribution of rice, so our school staff cooperated in the distribution.

2 March 12 (Saturday) ~ March 13 (Tuesday)

All students could meet their parents and left the gym. About 60 people remained there. There were the distribution of rice from the community in other areas, so about 10 members from our school staff helped in the distribution of rice balls and green tea.

The area of the gym was large but it was cold there, so the school staff made two club rooms and the hall of the gym entrance into the rooms for evacuation using corrugated cardboard.

3 March 16 (Wednesday)

After breakfast, about 60 evacuating people moved to the public hall of the town. All school staff and teachers repaired and cleaned the gym arena, club rooms and the entrance hall. From Kagawa Prefecture, 44 members of the emergency fire brigade and 10 fire engine trucks arrived at the school, so I lent them the schoolyard and the gym.



4 March 17 (Thursday)

About 90 members of the fire brigade from Yamanashi Prefecture and 17 fire engine trucks reached the school. I lent them the schoolyard and the gym.

5 April 2 (Sunday)

The fire brigades from Kagawa and Yamanashi Prefectures withdrew from the town.

4 Engagements Aimed at School Reopening

- March 13: Due to the order from the board of education in the city, municipal schools had to be closed for a while. An announcement of successful examinees would be on March 22. I knew that 155 students including third-year students were safe.
- March 14: At 13 places within the school district, I wrote the order from the board of education on imitation

Japanese vellum, and put them up.

- March 15: I received the order from the board of education and decided that our school would hold the graduation ceremony and would finish the semester from March 22 through 24. I also decided that the school would start the next semester in April 21.
- March 16: At the staff meeting, we decided the date of the graduation ceremony, of the end of the semester, and of a farewell ceremony of staff who would leave the school. Staff wrote about that on imitation vellum and put them up at 13 places within the school district.
- March 22: At a whole-school meeting, as the principal, I explained to students about those plans.
- March 23: The graduation ceremony, an announcement of successful examinees in high schools.
- March 29: The farewell ceremony of school-leaving staff.
- April 1: In the temporary meeting, we decided to restart the school, and that we would hold the entrance ceremony and start the first semester on April 20, and second-year students would leave the school for a study training, during which students would stay in other facilities.
- April 4: After the temporary meeting of school principals, I got an acknowledgment from the board of education that our school would carry out these plans. (Other schools would hold an entrance ceremony on April 21.)
- April 5: I started to tell parents of second-year students that we would hold the study training on April 21.
- April 20: Beginning of the first semester and the entrance ceremony.
- April 21: Second-year students left the school for the study training.
Other school events were held following the plan for the year.

5 School and Local Community Cooperation

Although our school was not designated as an evacuation site, people in the town called for the safe place voluntarily and about 80 people came here to take the evacuation place. On March 11, 20 students whose parents could not meet them also stayed in the school gym as the evacuation site. Some of them suffered the earthquake and came here while traveling around this region.

As the cooperation with local community, we school staff opened the school as an evacuation site from March 11 through 16 and helped the operation of the school. In addition, three local community centers of the town were opened as evacuation sites in the school district, and our junior-high students helped with the operation. Moreover, as the student council, some students made a message board to thank members of the Self-Defense Forces of Japan who supported construction of the public bath and gave the board to them. Students who belong to the brass band club also held a concert to encourage people in other evacuation sites.



6 Issues and Prospects

School staff and students have performed evacuation drills in the case of earthquake, fire, and of the invasion by a suspicious person, etc., every year. However, we did these drills in order to protect our bodies, not our own lives. Fortunately, when the disaster happened, many students were in Tsuya Junior High, which was the strongest building in the local area, therefore our school did not have victims who lost their lives. But I think that if this disaster had happened when students had been on the way home or been staying in their houses, there would have been some victims. My opinion is that we should put the consciousness of “protect our lives” into our mind in various educational activities for the prevention of disaster in the future.

In addition, while school staff stopped the operation of the school, some students helped with the distribution of rice and supported people who suffered the disaster in the local facility, which was evaluated high by local people. The number of students who believe that junior-high students should play a supporting role is more than a few; in fact, many students think that.

As school principal, I believe that we need to have a consciousness of helping other victims, and to perform education for disaster to learn how to support such victims, if it is proven that junior-high students can be supporters for sufferers of the disaster and that they can protect their lives safely.

Reinforcing and Developing Future Junior High School Education

ONODERA Shoichi, Principal

1 Pre-Disaster School Overview

Koizumi Junior High School became a city-run school in September 2009, since the merger of Kesennuma and Motoyochi-cho. It is the southernmost junior high in the city. There is the Pacific Ocean stretching along the eastern side of the school district. In the south, the district is bordered by the Utatsu Junior High district in Minamisanriku-cho. The former Motoyoshi-cho built a two-story school building with reinforced concrete in 1998 on a prominent cape-like high ground. The schoolyard is 27 meters above sea level. An elementary school and a kindergarten are adjoined. National Highway 45 and JR Kesennuma line run below, and the school district also encompasses the Akazaki coast with beautiful beaches and pine groves, the Koizumi River up which salmon swim to spawn, and historic Tatsugane Mountain. Our school is in an area which has both good access to transportation and a rich natural environment.



The formerly beautiful coastline of Koizumi.

We were 52 students and 12 full-time teachers and school staff when the earthquake struck in March 2011.

One of our educational goals is to cultivate fine, creative characters that can play a role in local community development. To achieve this goal we have been working on running the school with the local community and parents. It was the community's idea to build the schools on a higher ground so that in the case of a big disaster, the junior high school gymnasium could be used as a shelter. Due to the realities of this environment, the kindergarten, elementary, and junior high schools have had disaster drills together since 2009, where we guide the young children and pupils while finding a way to work together in emergencies.

2 Immediate Post-Disaster Situation

Since the graduation ceremony was scheduled to take place the next day, the third-year students had already gone home and the first and second-year students were making preparations for the ceremony when the huge earthquake occurred. At the school, the earthquake measured an upper 5 on the Japanese seismic intensity scale of 7, at 2:46 p.m.

The students and staff who were still at school evacuated together to the schoolyard. Because almost everyone was in the gymnasium preparing for graduation, giving evacuation instructions was relatively easy. The area for evacuation was the eastern part (ocean-side) of the schoolyard. Everyone was able to escape safely without injury.

Although the evacuation was successful, the students weren't able to take their winter clothes with them. Some of the teachers and school staff entered the school building amid strong aftershocks to retrieve the clothes from the classrooms and take them to the students. We also got under blue tarps to stave off the cold and snow. The quake was powerful and long-lasting, something I had never experienced. Instantly I realized that it was finally happening—the earthquake off the coast of Miyagi prefecture we had been worried about. Therefore, I figured it would be sensible to stand by in the schoolyard for the time being and cope with the situation while keeping up-to-date on the conditions of the disaster. To that end, we drove a car into the schoolyard to attempt to access information via the radio. Community residents had been gradually gathering at the school. We met and joined the staff of the local community center. We were able to pick up the giant tsunami warning via the regional emergency wireless radio and the car radio.

I was convinced that a tsunami would strike, and while I was thinking to observe its extent and the damage it would cause, it hit around 3:30 p.m. This tsunami was not just any wave, but more like the sea itself, swollen and overflowing—I was speechless. I had taken it lightly and never thought it would reach the schoolyard; however, it



The giant tsunami viewed from the schoolyard.

surged up to below the schoolyard at a furious pace. It was far and away beyond what I had imagined. Since we feared for our physical safety, teachers and school staff gave secondary evacuation instructions to the students. They had them climb up the embankment slope west of the schoolyard to higher ground. The refuge location was a privately owned field.

There we met with the adjacent elementary school and kindergarten students as well as their teachers and staff. Junior high school students rounded up the elementary schoolers and kindergarteners by residential district, watching over them as they had done in the joint disaster preparedness drills and awaiting their teachers' instructions. About half of the third-year students returned to join us; however, the safety of the rest of them was unconfirmed. The snow started falling fast and it was freezing. We tried to use blue tarps to protect us against the cold, but it did not work. We also tried to build shelters for the community residents using tents and blue tarps brought from the school's warehouse, but it did not go very well.

In the end, the tsunami swallowed up the entire residential neighborhood below the school. The area suffered catastrophic damage. Thankfully, we could not see the details of what was happening from where we were. I figure it was probably better for the students that way. At a later date, I checked the maximum height of the tsunami and it seemed that it got up to maybe 20 meters. At first the junior high schoolers were shocked, but perhaps because they knew they had to set an example for the elementary schoolers, they were soon able to regain their composure.

At our secondary evacuation location, the local people were celebrating their safe reunion and discussing their anxiety. The sun was getting close to setting. At first I thought it was safer to spend a night outside because we could not confirm if it was safe to stay in the gymnasium or school. However, as it was bitterly cold, I determined that we could not stay outside all night. I thought everyone should instead take refuge in our gymnasium with the local people even if it was a little risky. It had been a powerful and long-lasting earthquake and the aftershocks continued. There was a risk of getting injured by falling objects or collapsing buildings, so I instructed our staff to confirm if the gymnasium could be used. Then we all made the third evacuation to the gymnasium. Amidst the gloom the teachers, staff, and junior high schoolers led the younger students and community residents as we anxiously relocated.



The transformation of a residential area.

3 Immediate Post-Disaster Responses, and the School's Role

Our first priority was for everyone to pass the night safely, including the local people. The teachers and staff of the kindergarten, elementary school, junior high school, and local community center played central roles in setting up the shelter. Junior high school students helped them a lot. The students worked with the teachers to deftly set out tatami judo mats and mats used for gymnastics so people could spend the night in the gymnasium. They set up chairs and desks as well. They also gathered and supervised children according to residential district under the guidance of the teachers. Their parents, guardians, and other local people eventually joined.

The kindergarten, elementary school, and junior high school reconfirmed that they would deal with the emergency as previously planned. The teachers and the school staff protected the students. At the same time they made the junior high school students help them with work and life in the shelter. Amid the aftershocks the staff went back to their respective workplaces (which were dark due to the blackout) and retrieved various equipment that would be useful in this shelter life scenario. They made a huge effort, while worrying about the safety of their families and the conditions of their homes.

One of them had this to say at a later date: "When the tsunami struck, I thought it must have been washing away my house. It was heartbreaking. I believed that each of my family members was protecting themselves. I was anxious, but there was nothing to do but resign myself to the situation."

Local people voluntarily brought their generators, kerosene heaters, and other useful gadgets to support the shelter. It was not enough, but that first night we were able to keep ourselves warm with the heaters, light the gymnasium, and power the radios to get information. Nevertheless the emergency telephone installed was disabled because the utility poles fell over; cell phones were likewise not working. The water supply was also shut off. Apparently the National Highway 45 bridge was washed out, so there was a possibility that the school would become isolated. Since we did not have a handle on how bad the disaster was, I was not sure when we should use our limited-amount emergency supplies.

At the city-run school principal conference held three weeks before the disaster, the amended proposal for a



A meeting at shelter headquarters.

shelter management system, made by the crisis-management division of the city, was introduced. This revision was based on what we learned from the tsunami triggered by the earthquake in Chile at the end of February 2010. It was indicated in the proposal revision that municipal employees would play central roles in setting up and running shelters and be placed in the facility closest to their home in the event of a tsunami. The proposal revision had a basic policy for shelter operation; the municipal employees were supposed to take the initiative. Thus, from the very beginning, to set up the shelter we worked with the president of the local community center (a municipal employee) and tried to take part in the refuge operation as efficient collaborators.

Since everyone was trying to figure out the state of their families and homes, at first local community residents could not run the shelter by themselves. Decisions made by the school principals and acts performed by the teachers, the school staff, and the students had a major impact in the early stages. However, after a few days a system where the chairman of the neighborhood community association liaison council served as chief of the shelter headquarters was established. The staff of the local community center undertook the role of organizer and the role of the schools shrank. The school principals or their delegates attended shelter h.q. meetings to make suggestions regarding the care and guidance of the students, management of school facilities, problems encountered in shelter life, and so on. However, the shelter operation itself was gradually taken over by the community. The schools ended up providing counseling and encouragement. Up to 580 people stayed in the gymnasium. Because the local community organization was respected from the beginning, a sense of everyday life was reflected in the shelter and there was no confusion. The shelter management instead showed off the power of the community. Evacuees never lived in classrooms.

All the teachers and staff of Koizumi Junior High School slept in the gymnasium for one week from the time the disaster occurred. They supported students and worked hard running the shelter. The principal requested they cooperate right after the earthquake/tsunami and as a result, they did. We were also able to receive the support of teachers and staff who were affected by the disaster themselves and could not get connected with their families. In the shelter, the presence of teachers and staff made students feel secure, and were a comfort to the community residents. From the tenth day of the disaster, I asked that they perform night watch on a rotation. We formulated a system to maintain the school building while watching over the students, cooperating with the shelter headquarters and the community residents. This set-up continued into late April.

4 Engagements Aimed at School Reopening

1 The damage to Koizumi Junior High School and its recovery

We could not confirm the safety of the third-year students immediately after the disaster. However, after a few days we learned that all of them were safe and sound as well as all of their parents and guardians. Yet approximately 70% of students' homes were lost or damaged. Two staff members had their houses completely destroyed. Two others' houses had flood damage. Fortunately the tsunami did not damage the school building. Also, surprisingly, the main shock did not cause much damage to the school. Roof tiles were partially damaged and some classrooms' windowpanes were broken, but there was nothing worse than that. The main shock was an upper 5 on the Japanese seismic intensity scale of 7. Although it was a strong earthquake, none of the potted flowers lined on the stage in the gymnasium tipped over. There was powerful, long-lasting shaking, yet it could have been a simple, vertical earthquake. However, in an unfortunate turn, the strong aftershock in April caused even more damage. The utilities took a while to come back online; however, the blackout ended in early April and the water supply was restored in early May. Phones were temporarily reinstated in July and Internet access was provisionally restored in November.

The construction of temporary housing in the schoolyard started in early April. It was finished in the middle of May and people started to move in. A small town with 93 dwellings formed in the schoolyard. Still, it did not mean that all the families of the students were able to move into the temporary housing. Some junior high schoolers were attending classes while still leading an evacuee life in the gym. Since there were evacuees in the gym until early September, we were not able to use it for educational purposes. Four junior high school students remained in the shelter till the end.

2 The efforts of the school

The Koizumi Junior High School students started activities in the shelter a few days after the disaster. One was to function as leaders of physical exercise. The other was garbage collection. Both activities were carried twice a day, once in the morning, once in the afternoon. Groups of students worked on rotation. In my opinion, these activities of junior high school students were able to help people to stay positive. I think they also channeled people's attitude towards a healthy lifestyle.



A washed out bridge and collapsed railroad line.

On Saturday, March 26th, we held a graduation ceremony, an end of term ceremony, and a farewell ceremony for departing teachers and staff at a multipurpose hall to mark the end of the 2010 school year. The hall was dark because of the blackout. Since the students could not easily gather at school we let them know far in advance, and held the three ceremonies in a day, one at a time. We forced ourselves to hold these events to put an end to school year. It paved the way for the start of the new school year.

In addition, the staff decided on a time once a day to gather the students still staying in the shelter and hold study sessions to support the students' learning. Together with the student activities described above, these study sessions were to form the daily rhythm of the students' life and learning, aiming to keep them healthy both physically and mentally. As staff listened to each of the students to develop a better understanding of their situation and collect information, they naturally gave them situation-appropriate advice and encouragement and tried to assuage their concerns. Students in the shelter often looked somber. However, when they gathered for the study sessions in the school building, they had returned to looking like normal junior high school students. So in this way, they were able to recover their cheerfulness and positive attitudes a little. I suppose the natural care and support from the teachers affected the students favorably, and that is why barely any of them needed psychological care afterwards. It was good for the teachers as well because it was a chance to realize their vocations.

The biggest challenge in reopening the school was running school busses, which we never had before. The National Highway 45 bridge was washed out and that situation created difficulty commuting to school for many students. Also, there were families that moved to Ichinoseki, Iwate Prefecture as secondary evacuation. The operation of school busses was finally decided upon as a result of not only the school voicing the issue to the Board of Education, but also the local community strongly requesting them from the city government. Without school busses, many students would have considered transferring to nearby schools and it could possibly have endangered the continued operation of Koizumi Junior High School. We still didn't have water, but amidst the confusion, we held our opening ceremony on April 21st.

5 School and Local Community Cooperation

Since before the disaster, we have always placed priority on cooperation with the local community. For example, we held sports day together with community residents. We also held cultural festivals jointly with the local community center. We maintained close contact with the staff of the local community center and representatives of the local community and established good relationships. As a result, cooperation during the disaster went smoothly, and we were able to deal with our respective issues while considering each other's situations.

For instance, at first the local community was examining the primary school playground as the location for temporary housing construction. Because the junior high school gymnasium was already being used as a shelter, they thought they should not borrow the schoolyard as well. However, later they decided it had to be the junior high school schoolyard because of how much space was available. Still, they tried to accommodate our requests as much as possible. We asked them to leave the tennis court and 10 x 100 meters of the schoolyard on the school building side for the students. Currently, this narrow schoolyard is used extremely efficiently. We held a sports day here in September, and were able to use our ingenuity to maximize the limited space to make it a great event.

Besides that, in order to close the shelter quickly and restore the gymnasium to students for their club activities, the local community prompted relocation of the shelter to Ichinoseki, Iwate Prefecture. Moreover, they offered lunch for the teachers, staff, and junior high school students on days school lunch could not be prepared. Thanks to that, students were able to work until evening. Local people had the kindness to take care of the junior high school students of the Koizumi area. There were families who had their school uniforms, gym clothes, and school supplies swept away by the tsunami, but locals sensed their distress and reached out, donating hand-me-downs from former graduates to get them through the crisis. Plus, the local facility for the welfare of the elderly kindly provided new club uniforms.

Due to this kind of relationship, we have been willingly cooperating with the community in every way possible. We also passed along our requests to the community honestly. In addition to the guardians of our students, we currently distribute our school newsletter to neighboring temporary housing units to improve understanding and cooperation. It is important for the community and the school to respect each other. We hope to be good partners going forward as well.



New uniforms.

6 Issues and Prospects

Now, 10 months after the disaster, the students are leading their school life with energy. Unfortunately, one student moved away due to family circumstances, but we keep educational activities going with a lot of help and encouragement from home and abroad. The warm support and cheer from everyone was far beyond our expectations. I do not know how to express our appreciation.

However, we have some concerns. One is that students may abandon their dreams and hopes for the future. This disaster is extensive and the financial and psychological damage to families is immeasurable. I wonder if the students can keep their dreams and hopes big and keep working hard in the future. I am afraid “giving up” will spread among the students. We would hope that a comprehensive financial aid system could be set up.

One other thing is that the damage caused by the disaster might cause families to disintegrate. I am worried this could lead to mental instability for the students.

The other issue is that the school was unable to sufficiently reward or repay a lot of our supporters. We need to discuss how to respond to people and groups who help us from now on. Conversely, I would also like to mention that programs often proposed out of goodwill are tending to affect the original curriculum.

By the way, it is also true that through the disaster, students were awakened to several good things. The disaster experience made them realize that relationships between people are more crucial than material objects. They also felt the magnificence of manpower. These are things that they should remember in their study and everyday life from now on.

Through the disaster, I, as the principal, rediscovered the significance of schools. The event taught me again how much having lots of friends and teachers, six periods of classes everyday, and club activities to work on with enthusiasm can brighten the lives of junior high schoolers. I also realized that our ordinary curriculum is important and useful in emergencies, too. The classroom work, ethics, student council participation, and club activities which locals (once junior high schoolers) had experienced benefited the evacuee life. I witnessed the beautiful accomplishments of education and fully realized the meaning of it. The knowledge, skills, and abilities of thinking, judgment, and expression cultivated by school subjects and the Period of Integrated Study are human abilities which are also crucial to deal with emergencies.

This led me to think that what we need as our most important theme is not “new educational activities,” but to fulfill and develop the original junior high school curriculum. This is because it develops people’s capacities to deal with emergency circumstances and disaster preparedness. In fact, if I look back, problems that arose did so due to formal and insubstantial education.

Going forward, we hope to improve everyone’s will to live side-by-side, as well as continue to create a school that has dialogue in order to fulfill and develop the essential junior high curriculum. Since we were lucky enough to survive the disaster, we believe we should put our best efforts into subjects and clubs that brighten the students’ lives.



Students and teachers work together!

Ohya Junior High School

Reviving Educational Activities After the Great Eastern Japan Earthquake

UESUGI Yoshinori, Principal

1 Pre-Disaster School Overview

Our school is located in what used to be Motoyoshi-cyo Town, which is to the south of Kesennuma City in the northern part of Miyagi Prefecture. There are many mountain villages and fishing villages in this area of rich natural environment surrounded by mountains and the ocean. There is the very beautiful Ohya beach and we enjoy many visitors in the summer.

Our school was renamed Kesennuma City Municipal Ohya Junior High School after Kesennuma City and Motoyoshichyo Town merged on September 1, 2009. Our school consists of 121 students who are cheerful, pleasant, and truthful, and who work sincerely on activities.

We only have one preschool, elementary school, and junior high school in this region, and these three schools have a lot of daily interactions with each other through events and activities such as general learning classes. In particular, in general learning classes (which are called “Rippling Waves”), the collaboration between these three schools has been developing through lessons aimed at “nourishing the heart that understands, loves, and creates your home.” In these lessons, we promote the students’ awareness of nature and the environment, and encourage education about environmental conservation through hands-on and inquisitive activities.



The school building of Ohya Junior High School in April.

■ Aim of our education

- (1) nourishing students who are thoughtful and compassionate (cultivation of heart, self-discipline)
- (2) nourishing students who learn enthusiastically and joyously (spontaneity, positive learning)
- (3) nourishing students who are cheerful and healthy (health, endeavor)

■ Ideal image of our school

A school where there are songs, pictures, flowers, and lots of children’s smiles.

■ Ideal image of a student

- (1) A student who can understand the sorrow of others and who can care deeply about his/her friends (cultivation of heart).
- (2) A student who recognizes the differences between the characteristics of the people around and him/herself, and who respects such differences (self-discipline).
- (3) A student who takes a positive attitude toward events and other activities and expands the possibilities of him/herself (spontaneity).
- (4) A student who sets a goal and works on classes and home studying spontaneously (positive learning).
- (5) A student who feels comfortable exercising and who cherishes his/her health and safety (health).
- (6) A student who doesn’t give up and perseveres to the end in everything (endeavor).

■ Ideal image of a teacher

- (1) A teacher who can give lessons that are easy to understand and are fun based on the deep studying of teaching materials.
- (2) A teacher who cherishes heart-to-heart communication with his/her students, and who deeply understands his/her students in every aspect.
- (3) A teacher who works hard with the students while playing sports and during activities.



The restoration of Winter Water Rice Field. Volunteers, students, teachers, and staff members.

2 Immediate Post-Disaster Situation

March 11

- 14:46 ■ An earthquake of Magnitude 9.0 and with a shaking level of lower 6 on the Japanese earthquake scale of seven at Kesenuma (higher 5 at Motoyoshi) occurred.
- 14:53 ■ We perceived danger from how it was shaking and led the students out to the playground for the first evacuation.
- All of the seventh and eighth graders and some of the ninth graders were in the middle of the preparation for the graduation ceremony that was supposed to take place on the next day.
 - There were some students who panicked or burst into tears, so we gathered at one place and cheered each other up while enduring the cold.
 - It was so cold that we gathered the students at the center of the playground and surrounded them with the teachers' cars to protect them from the wind. We also built a tent that we normally use for events and covered it with plastic sheets.
- 15:00 ■ We received a warning for a huge tsunami from the fire department. We made the second evacuation to a higher place behind the gym.
- We could confirm the safety of 100 students and 14 teachers. People from the neighborhood came one after another for evacuation.
- 15:31 ■ A huge tsunami hit our playground from the direction of Ohya Elementary School and the playground was instantly covered with debris.
- Teachers helped the evacuation of the people who got left behind or local elderly people by carrying them on their backs or by leading them to the evacuation spot by their hands (the water was about over their knees in the playground).
 - After the evacuation, among especially ninth-grade students, the attitude to think about what they can do and to act spontaneously was seen. They guided the elderly people and carried cushions and blankets from the community center again and again.
 - We instructed the students not to go near the playground, which was still covered with water.
- 16:30 ■ We were informed that the evacuation order had ended, and we checked the damage condition of the school building and the surrounding area by dividing the work among us.
- 17:10 ■ We set up a shelter in the gym to which we could move from the high ground without getting wet.
- 18:43 ■ Students and teachers were moved to the shelter (the gym). Earthquake survivors of the district came to evacuate (around 250 people).
- ※ Special teachers' meeting (instruction)
- | |
|---|
| <ul style="list-style-type: none">① Necessity for the teachers and the staff members to take care of the shelter (teachers were to stay at the shelter and support it).② The continuous protection of the students in the shelter.③ The division of work among the teachers.④ The acceptance and support for the evacuees from the district. |
|---|
- 21:00 ■ It was decided that the shelter would be taken care of by the teachers and the staff members.
- ※ The students whose parents showed up went home, and the remaining 52 students stayed at the gym with the evacuees.
 - ※ Electricity and water were cut off. National highways and municipal roads were blocked. Teachers also spent the night in the gym. We had no blankets, food, or water, and we had to bear hunger and the cold in complete darkness.
 - ※ Teachers took turns supporting the people in the shelter. Two teachers were in charge at one time. Aftershock continued, and it shook violently in the gym, too.
 - ※ Kamigou district's region promotion group cooked us food and brought it to us late at night, and we finally received rice balls.

March 12

- 9:00 ■ Teachers cleared the debris and mud away from the path from the gym to the school building.
- 13:30 ■ Some of the students who stayed at the gym went back to their houses. 32 out of 52 students went home with their parents.
- 19:00 ■ Aid to the evacuees by the teachers. ※ Some teachers took care of the people in the gym while the other teachers supported the people in the school building. They took turns resting and aiding.
- ※ A private power generator and oil space heaters were set up in the shelter and the lights were recovered.
 - ※ We didn't have enough blankets and warm clothes and there were some people who got weakened by the cold.
 - ※ Teachers cleared the debris and mud away from the space between the gym and the school building.

March 13

- 9:00 ■ All the students who were staying at the shelter went home with their parents.
- 16:00 ■ We rechecked the damage of the school building caused by the earthquake and cleared the mud away from the flooded first floor and cleaned it.

March 14

- As the school principal, I discussed how to take care of the shelter with the staff members of the community center.

- ※ There was a limit to the management of the shelter by only teachers. In the shelter (the gym), the number of people who got sick from the cold and fatigue had increased and teachers were getting tired, too, so I instructed the teachers to take a rest by taking turns.
- ※ School staff members cleared the debris around the cars in the playground so that we could use the teachers' cars.
- ※ The aid of distributing boiled rice began among the local people. Teachers went back and forth bringing food and other commodities to school.

March 15

- The gym was so cold that we moved the shelter from the gym to the community center.
- ※ Teachers tried to get the gym back to its original state. I instructed the teachers to stay alert at school.
- ※ Staff members cleared the debris away from around the school building, brought street gutters, the parking lot, and the playground to usable conditions, and got rid of the mud in the school building.
- ※ I gave instructions to visit the shelters in each district and confirm the safety of all the students.

March 22

- We made it a school-attendance day, and we made preparations for the graduation ceremony.

March 23

- We performed the graduation ceremony and the end-of-the-year ceremony at the multi-purpose hall on the second floor of the school building. We got our electricity from our cars because of the blackout.

March 29

- Farewell ceremony for transferring teachers.

【Damage situation】

- Since we were making preparations for the graduation ceremony on the day of the earthquake and were able to give thorough evacuation instructions, all the students, teachers, and staff members were safe, although there were some ninth-grade students who had already gone back home (we could confirm the safety of those ninth graders later on).
- The houses of a third of all the 121 students were completely or partially destroyed and washed away. Six out of fifteen teachers had their houses completely or partially destroyed and washed away.
- A tsunami hit our school from the direction of Ohya Elementary School. The playground and the back of the school building were covered with debris and the school building got flooded with water, too. (The playground was cleaned up later on by the people from the Self-Defense Forces, who helped us remove the debris).
- Our water supply and electricity were cut off, telephones, the Internet, and other communication devices were unusable, and we couldn't even use a heater.
- The debris in the back of the school building was cleared away by the members of the National Volunteers Union.
- Part of the school building got flooded above the floor by the tsunami. (Muddy water got in and the flooring material was warped.)
- The fence in the back of the school building got warped and destroyed by the tsunami. Club rooms and storerooms of sports clubs got flooded and were partially destroyed.
- The roads around the school got blocked because of the debris from the tsunami.
- Several places on the ground around the school building sunk (such as below the emergency stairs) because of the earthquake.
- The streets that students use when coming to school were covered with debris, had fallen electric wires, sunk, had collapsed slopes, had broken traffic lights, had damaged sidewalks, and so on.

3 Immediate Post-Disaster Responses, and the School's Role

■ The role the school played as the emergency shelter for the local residents

- ① Guide and help for the evacuation to local residents (especially to the elderly, people staying at welfare facilities, etc.).
- ② Acceptance and support for local residents who got evacuated.

Measures against the cold, transmission of information, transportation and distribution of relief supplies, and support for living (drinking water, bathrooms).

※ The gym of Ohya Junior High School was a temporary shelter. It was cold, lacked supplies, and had no access to information, and it didn't have very good conditions as a shelter. However, until all the evacuees in the gym left, all the teachers and staff members mainly stayed at school and took short sleep in the teachers' room or the nurse's office while taking turns from



The area around Hamanasu Station just after the earthquake.



National Highway 45 just after the earthquake.

the evening in going to the gym to supply fuel and to take care of the evacuees.

※ We offered to use our playground for constructing temporary dwellings. 186 apartments were built (a situation in which we can't use the playground). We cooperated because we think that families (houses) work as the foundation of the lives of the local residents.

4 Engagements Aimed at School Reopening

March 15 (Tue.)	Teachers brought the gym back to its original state. I instructed the teachers to continue being cautious at school. Staff members visited the evacuation shelters in each district by sharing the work. I made them confirm the safety of all the students, and to tell the students the upcoming plans of our school. It took a week from the earthquake to ascertain the safety of all the students.
March 22 (Tue.)	We made it a school-attendance day, and got ready for the graduation ceremony.
March 23 (Wed.)	We carried out the graduation ceremony and the end-of-the-year ceremony in the multi-purpose hall on the second floor of the school building.
March 29 (Tue.)	Farewell ceremony for transferring teachers.
April 1 (Fri.)	Preparations for the new school year, and checks on the shelter and the students' safety and conditions. Teachers and the students restored the playground. The playground was in a condition in which club activities could not be carried out.
April 4 (Mon.)	Organized relief supplies (such as stationery and textbooks).
April 5 (Tue.)	Cleaned up the school building and classrooms. Prepared for the simple school lunch that was planned to start on April 25.
April 7 (Thurs.)	Checked the students' conditions (the reconfirmation of where they were living) and rechecked the damage status of their families. Prepared for the new school year (in order to enable the students to start the new school year with fresh feelings, like in a normal year).
April 8 (Fri.)	Checked the safety of the roads that students use when coming to school (we patrolled by dividing the area, checked the safety, and made clear the dangerous spots). Organized relief supplies and prepared for their distribution.
April 14 (Thurs.)	Carried out a simulation of the school-attendance day on April 18 (Mon.) by assuming how the students will move around (so that the students can smoothly use the entrance, hallways, classrooms, bathrooms, etc.). Prepared the vault toilets in the gym for their use.
April 18 (Mon.)	Checked the students' health, the conditions of the students who live outside the school district, and how students come to school. Responded to the press (I, the principal, and the vice-principal dealt with the mass media). Four temporary bathrooms were set up (directions, water, deodorant, indicators of boys' bathrooms and girls' bathrooms, etc.). Modified the disaster-response plan (we changed the second evacuation spot to the open space on the high ground in Teragai).
April 19 (Tue.)	Prepared for the new school year. Made preparations for the opening ceremony of the first term and the entrance ceremony. Cleaned up classrooms, hallways, and the entrance. Performed psychological therapy for teachers and staff members (the clinical psychotherapist from Tokyo).
April 20 (Wed.)	The construction of the 186 temporary dwellings began (in the playground).
April 21 (Thurs.)	Performed the opening ceremony of the first term and the entrance ceremony. Drinking water was provided in bottles. Temporary bathrooms were used.
April 27 (Wed.)	Water was sent from the water tank to the elevated water tank and the bathrooms could be used (the water could not be used as drinking water).
April 28 (Thurs.)	Conducted a disaster drill (under the hypothesis that an earthquake and a sequent tsunami occurred). We evacuated to the new evacuation spot in the open space in Teragai.
April 29 (Fri.)	Began volunteer work (the restoration of the school rice field) that lasted until May 6.
May 1 (Sun.)	Removed debris from the back of the school building (it was done by the people from the National Volunteers Union, teachers, and staff members).
May 17 (Tue.)	The event committee's meeting was held (they talked about the conduction of school events, such as the sports festival, the school festival, etc.).
May 24 (Tue.)	Carried out counseling for the students (it was performed by the counselors from Fukuoka prefecture) until the 25 th .
June 4 (Sat.)	An assembly to explain about the temporary dwellings was held (our gym was used). I, as the principal, asked the residents for cooperation in safety while entering the school area by cars.
June 9 (Thurs.)	Inspection of our school by the members of Kesenuma City Board of Education.
June 13 (Mon.)	Recovery of the waterworks (the drinking water).
July 14 (Thurs.)	Collaborated evacuation drill by the preschool, the elementary school, and the junior high school.
Sept. 10 (Sat.)	The temporary playground was completed, and it began to be used.



Temporary dwellings in the playground. 186 apartments.

5 School and Local Community Cooperation

- March 11 (Fri.) The gym was made the evacuation shelter and the school took care of it. We supported the evacuees, especially the elderly and those who had evacuated from welfare facilities.
- March 15 (Tue.) The school gym was too cold for a shelter, and the shelter was moved to the community center after a talk among the members of the school, the community center, and the local residents.
- April 12 (Tue.) We offered a place to hold a small concert by the orchestra (which was held with the aim of healing the hearts of the local people).
- April 13 (Wed.) We checked the places that needed the removal of the debris in the area used by the students when coming to school (the area from the Kaiyo Building to Ohya Elementary School and the streets in the back of Ohya Junior High School).
- April 14 (Thurs.) The chief of the autonomous region explained about the construction of the temporary dwellings in our playground.
- April 21 (Thurs.) We invited local guests to our entrance ceremony (we also invited them to the other school events of the year).
- April 29 (Sun.) ~ May 6 (Fri.) For the revitalization of the community, volunteers, students, teachers, and school staff members restored and recovered the school rice field (winter water field) which had been buried by the debris.

6 Issues and Prospects

■ Reexamination of disaster response plans ■

- Reconsideration of the evacuation spot (we changed it to a safer place) and an evacuation drill (it was collaborated in by the preschool, the elementary school, and the junior high school and was held with the local residents' participation).
- Reconfirmation of the methods of communication between the school and the students in preparation for the commencement of school.
- Stockpiling the emergency supplies for a shelter (food, blankets, drinking water, radios, flashlights, batteries, etc.).
- Supplies necessary during the evacuation period (radios, flashlights, batteries, food, blankets, and cars for emergencies).
- The method of evacuation of students when they are out of school.
- Continuation of group evacuation at the point where a tsunami warning gets announced (with the local residents).
- Preparation of the teachers' portable emergency supplies, and having teachers carry them around.
- Preparations for enabling the quick evacuation of students.

■ Bringing the school become back to normal as quickly as possible ■

- Check on the damage conditions of families, check of the studying materials lost by the earthquake, and support.
- Restorations of the utilities and school facilities (especially drinking water, bathrooms, and the confirmation of safety in the roads used by students coming to school).
- Hindrance against studying (the acquisition of class hours in spite of the emergency closure of school and the search for a new playground because of the construction of the temporary dwellings).
- Supplies necessary for studying (textbooks, teaching aids, stationery, etc.).
- Necessities for life at school (uniforms, school jerseys, club activities' materials, etc.).
- Psychological therapy for students, teachers, and staff members (counseling by a clinical psychotherapist, and the healing of hearts). (Although every student went through the earthquake and the tsunami, there was an emotional distance between the children who suffered from damage and the children who didn't, and there were also teachers and staff members who suffered from damage themselves).
- The performance of school events by becoming creative (we didn't consider calling them off, but tried to carry them out by finding some ways).
- Expression of our gratitude for the support and help we have got and sending our cheers to the world.

■ Work that still needs to be done, and my words as a principal ■

- It is required as a principal to be heavily responsible for the lives of the students and be able to make right decisions at a time of emergency.
- Reconsideration of the evacuation spot for the future and the performance of drills.
- Cooperation with the residents of the temporary dwellings constructed in the playground and with the local people.
- As a school, we would like to encourage the performance of school events by devising ways and means with all the teachers and staff members so that we can develop effective educational activities despite the great limitations imposed to the educational activities by the earthquake disaster.
- Events shouldn't be called off, because they can be performed by finding creative ways with the creativity of the teachers and the enthusiasm of the students. We believe that performing them can give a great educational effect on the students.
- Students worked positively as the members of the community during this big earthquake disaster. Such actions were very hopeful and moving to us. Those who are going to revitalize Kesenuma City are the present students. We strongly feel the joy of being able to take part in the education of such students.

Educational Recovery in Kesennuma City and Collaboration with Miyagi University of Education

Miyagi University of Education

ICHINOSE Tomonori, Professor

The cooperation of Miyagi University of Education and the Kesennuma City Education Board has lasted more than ten years since Omore elementary school started research and practice in the realm of international environmental education in May 2002. In March 2005, Miyagi University of Education and the Kesennuma city Education Board officially signed memorandum on cooperation agreement, and their activity developed from environmental education to ESD/Unesco school activities. In April 2008, the cooperation center of Kesennuma city Miyagi University of Education was set up.

Although no students of Miyagi University of education lost their lives because of Tohoku earthquake of March 11, 2011, 21 people who are students' family member died or are missing, 37 students' houses were completely destroyed, and 529 students suffered from damage including that their houses were partially damaged. However, after three weeks from the earthquake, Miyagi University of Education started help with the re-establishment of education in Kesennuma city.

1 Local support of Miyagi University of Education right after the earthquake

As mentioned above, Miyagi University of Education received a lot of damage from the Tohoku earthquake because it is in Sendai city. However after three weeks from the earthquake, they decided a policy about disaster prevention measures. In May 5, they set up a *Miyagi-Sendai future making* project for helping schools. ESD/RCE council, which was an existing organization, assigned a secretariat of the project and the disaster recovery assistant of Miyagi University of Education was integrated. The purposes of this project are supporting restoration and researching needs of helping restoration and situation of damage of kindergardens, elementary schools, junior high schools, and special support education school in Miyagi Prefecture which had damage from earthquake and tsunami.

In April 8, the members who are in charge of this project went to Miyagi Education Board and Sendai city Education Board and explained how to support schools. In April 10, they went to Kesennuma City Education Board and got information about the present situation and what people in this area demand. After that, they visited all eleven cities' education boards which had great tsunami damage and asked them what they needed. Then, they obtained an agreement for helping schools which needed support.

At this time, Miyagi University of Education already started particular support to the schools. For example, they sent student volunteer groups to the disaster area, and delivered commodities and relief supplies like stationery goods to education board and schools in Miyagi according to what they needed.

As you can see on the next page, they also delivered food, commodities, and relief supplies like stationery goods which are given by other universities and organizations related to UNESCO to education board and schools in Miyagi. They made a portal site of helping schools on their university's web site which showed what are able to receive as relief supplies. Then, they sent those things to the schools. The main support was sending school things for students, but many people pointed out the lack of school things for teachers at the same time with the school



start. With the help by NPO, they immediately prepared toolboxes (thermometers, calculators, staplers, rulers, etc.) for teachers and sent them to teachers.

[Material: Asia-Pacific Cultural Centre for UNESCO (ACCU)]

**Please cooperate with the activity of sending stationeries to the students
who are suffering from the Tohoku earthquake.**

We would like you to cooperate with the support of sending stationeries to the schools in Miyagi in succession in order to help the students whose schools had huge damage because of the Tohoku earthquake. Please cooperate with this activity of sending not only stationeries but also our hearts to them. [Made by ACCU, 2011, April 8]

<input type="radio"/> Tohoku University	Associate professor	ASANUMA Hiroshi
<input type="radio"/> Miyagi University of Education	Board chairman	MIKAMI Kazuyuki
<input type="radio"/> Iwate University	Board chairman	TAMA Shinnosuke
<input type="radio"/> Nara University of Education	Vice president	KATO Hisao
<input type="radio"/> ACCU	Head of the secretariat	

[Table 1: Supplies support from April to May]

- We sent relief supplies to Suzugawa high school in Minami-sanriku city. In May 7, we sent stationeries and dictionaries to them.
- In May 6, we sent toolboxes for teachers to Minami-Kesenuma elementary school.
- In April 30, we sent textbooks and dusting apparatus to Irimae elementary school in Minami-sanriku city.
- In April 26, we sent staplers to Kesenuma elementary school.
- In April 26, we sent water, stationeries, and materials for the Internet to Irimae elementary in Minami-sanriku city.
- In April 8, 10, we sent toys, drawing papers, foods, sanitary materials, clothes, and high boots to Kesenuma education board and Shiori elementary school.

2 Support center for educational development in Miyagi University of education

The activity of helping schools as performed by the students of this university started soon after the earthquake as a student volunteer work. The number of volunteers reached more than 120 people, which is a result of the school supporting staff project that was started before the earthquake.

In order to use the potential of this university as a university for training teachers and to support schools and education in the medium to long term, we set up *Support center for educational development*, instead of *Miyagi Sendai future making project*.

The purpose of this project was to deal with decreasing students' motivation to learn because the educational environment in the stricken area became terrible. The second purpose was to deal with children's mental stress because their family environment changed. The last purpose was to cope with the needs of the fields of education which changes every minute.

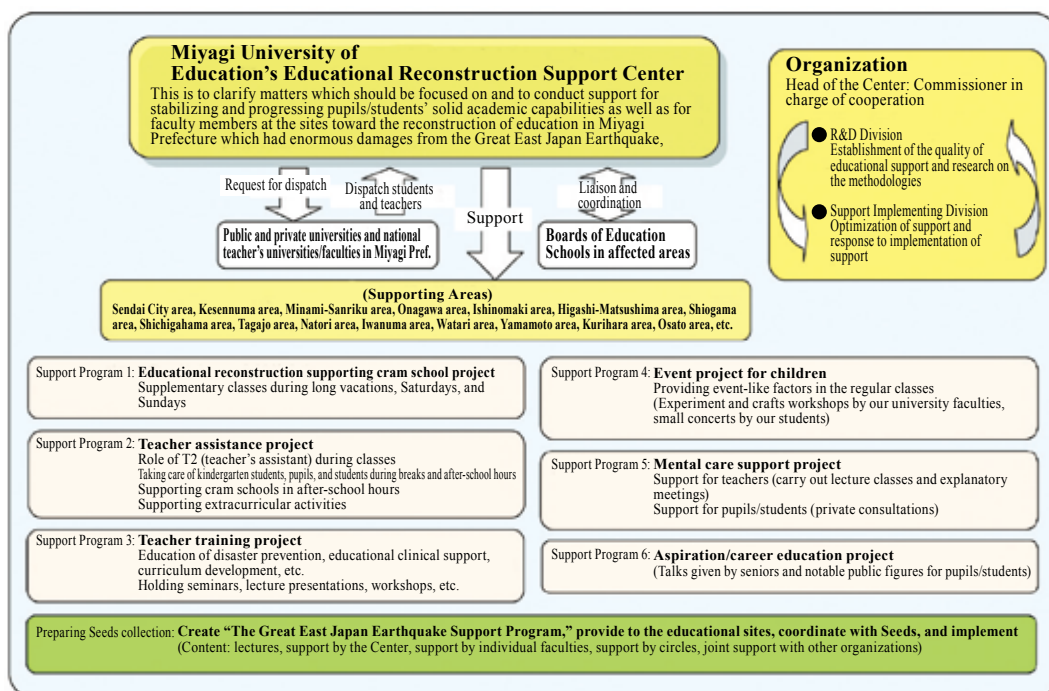
A support need of elementary schools and junior high schools is assistance in the summer schools in each school. Specifically, we helped students learn with some handouts delivered in schools, or helped them study with their own textbooks which they bought. Also, we helped teachers as assistant teachers in supplementary classes.

During the summer holidays from late in July to August, we sent about 1,000 students volunteer to 36 projects. Especially in Kesenuma city, we sent students to Karakuwa junior high school, Matsuiwa junior high school, and Oshima elementary school.

With the approval of this project from some universities of education and the Academic Consortium of Sendai, we could set up the *Support center for educational development*. We are performing this project with the help of about 340 students from other universities.

The *Support center for educational development* in Miyagi University of education is planning to support educational development in the disaster area for years, perhaps five or ten years, having ties with schools inside and outside Miyagi prefecture. Also, we will accumulate information of damaged area and clarify the process of material support to local schools and experiment of networking physical support. The description below is about educational projects and support activities which Miyagi University of education did with Kesenuma city.

Figure 1: Miyagi University of Education's Educational Reconstruction Support Center



School volunteer Motoyoshi Hibiki High



School volunteer Tsuya Junior High



3 Report: the cooperation of Kesennuma education board and earthquake projects

- ① The second UNESCO school event / workshop class “education for disaster prevention”

The date: 2010/10/30

The place: elementary school attached to Miyagi University of education

In the panel discussion of education for disaster prevention, some teachers in the disaster area presented how they acted for disaster prevention. Then, a research officer gave them some comments.

- ② The first support for Kesennuma city after Tohoku earthquake and information gathering

The date: 2011/03/26

The place: Kesennuma education board

Miyagi University of education sent relief goods to Kesennuma/Miyagi University of education cooperation center which was made in Heisei 21 (2009). We met the leader of the education board and got the information that five students had died and eight students were missing. Although many relief goods were delivered to Kesennuma city hall, they were not delivered to shelters enough because of a lack of gas for vehicles, etc. At this time, we received a lot of e-mails and words of encouragement from domestic and foreign universities.



- ③ Visits to Kesennuma education board and schools which suffered from the Tohoku earthquake

The date: 2011/04/08~04/15

The place: each education board in Miyagi prefecture

The members in Miyagi/Sendai future making project visited each education board and schools which had damage from the earthquake, sent relief supplies to them, and asked them what they needed. Though there were some types of support depending on how much damage they had received, they need continued support.



Condition near Minaikesennuma Station, provided by Memesawa

- ④ Support for Shiori elementary school in Kesennuma city

The date: 2011/04/25~04/30

The place: Shiori elementary school

We sent water, rice, and emergency food to Shiori elementary school in April 8. The students who belong to Igune research society did volunteer work like assortment of relief supplies, cleanup activities, and helping students leaving school from April 25 to 30.



Cleaning up activities
Shishiori elementary school

⑤ The first future making ESD seminar

The date: 2011/06/04

The place: Miyagi University of education

We held a seminar named *earthquake disaster recovery and future making of schools and regions* in order to promote sustained development education in Miyagi University of education. Thanks to the support of teachers, local people, and administrative effort, children recovered their composure finally. We sent four people: the leader of Kesennuma education board, the principal of Ogatsu junior high school, the principal of Arahama elementary school, and the vice-principal of Nagatoro elementary school. They reported the situations in disaster areas and the changes of children. At this day, 400 people attended this seminar and the seminar hall got to be almost full, which made us think of many people's feelings to the Tohoku earthquake.

⑥ The activities in Kesennuma high school

The date: 2011/05/28

The place: Kesennuma high school

The students in Kesennuma high school set up an investigation area in May 28 in order to research how much salt damage will be eliminated if they plant kenaf to remove salt damage in rice fields which had tsunami disaster. They will continue their research.



Activities by science club of Kesennuma High

⑦ Kesennuma's exchange with kinder garden and international exchange

The date: 2011/06/07

The place: Oya kinder garden in Kesennuma city

Professor Sato went to kindergardens and taught kids Warabe-uta, Japanese traditional songs. Professor Ichise, three exchange students (from India, Mongol, and Ghana), and Memesawa also attended this event. A teacher Eshima who teaches in UNESCO school gave kids yellow handkerchiefs. In the evening, we gave kids a thousand paper cranes which were sent from Thai Japanese schools.



⑧ The first step of educational recovery/A field report

The date: 2011/06/11

The place: A hall in University of the Sacred Heart

Mr. Oikawa, who was vice-principal of Nakai elementary school in Kesennuma city, told us stories about how he saved children from the earthquake and tsunami, and about how he is trying to promote educational recovery from huge earthquake damage.



Warabeuta Activities in Oya Kindergarten

⑨ The second future making ESD seminar

The date: 2011/06/25

The place: Miyagi University of education

We held a seminar named *Recovery from disaster / biodiversity / ESD* in our university and 150 people attend this seminar. Some teachers or professor reported on the present situation and raised some problems.

⑩ The fourth future making ESD seminar

The date: 2011/09/10

The place: Miyagi University of education

Since six months passed from the earthquake, teacher Konno in Shiori elementary school and teacher

Nakasato in Kesenuma junior high school reported the present situation of schools, and then they also reported the activities about mental care, and education in disaster areas. Professor in Kyoto University came to make a presentation about the relationship between school disaster prevention and local disaster prevention.

⑪ Japan / UNESCO partnership project

The date: 2012/01/18

The place: Hotel Kanyo in Kesenuma city

A principal and two teachers from America and 160 Koreans attended this project. They exchanged their opinions about how children interacted with the earthquake disaster and how people made efforts to solve problems with limited resources.

Editors' Afterwards

Almost a year has passed since the beginning of the first term of the 2011 school year on April 21. Just after the disaster, we were full of worries about starting school again: where should we even start, and how should we proceed thereafter? We could not see our way. That said, with the support and assistance of so many people, we have continuously moved forward, resolving one-by-one the problems faced directly at each school. Once we stop and think of it, as we face our busy third semester, we have the strange feeling of being happy even about this busyness.

We, the Association of Principals of Kesennuma Municipal Schools, with the assistance of the Kesennuma City Board of Education and the Miyagi University of Education, hereby gather these Records, to communicate to the coming generations the key issues at each school: disaster situations and responses, engagements aimed at reopening schools, cooperation between schools and their respective local communities, issues and prospects for the future, etc. Further, with this collection of Records, each of us school principals can gain an awareness of our individual situations and remaining problems. In this spirit, we herewith publish these Records. By having others read the stories of how, at each school isolated after this disaster, we strove to gather information, to make decisions, and to take action, we hope that these Records will be of some assistance in disaster prevention and response education, especially as future disasters are readily foreseen.

It will still be a long time before we fully recover. Even as we strongly desire the complete recovery and restoration of Kesennuma City, we will also work with all of our might for the education of our children and students who will bear the burdens of the future.

We express our deep gratitude to the contribution of volunteer students and Instructor Robert L. Plautz, Extension Center of Waseda University for the translation into English supported by The Hirayama Ikuo Volunteer Center and International Community Center of Waseda University. Thank you so very much.

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This records are translated by the student vounteers of WASEDA University



**Records of
the Great East Japan Earthquake:
To Advance Forwards After the Disaster**

Records of the Great East Japan Earthquake: To Advance Forwards After the Disaster



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