

Chapter 2 Good Recovery Practices after Large-Scale Disasters

Section 4 Recovery Experiences and Remaining Issues after the 2019 Hagibis Typhoon.

A long-term evacuation of a residential facility for persons with severe autism

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This lecture text is a re-composition of lecture records from 22th December 2019 (Tomohiro Uchiyama, Meeting on Disaster Experiences, Keyaki no Sato) and 7th November 2019 (Yoshiko Abe, Symposium of Japanese Association of Autism Support).



Fig. 1 The area surrounding the group home (13th 8:00 taken with a drone by a member of Keyaki no Sato staff)

1. Introduction

It was after the Great Hanshin-Awaji Earthquake that it became common knowledge that persons

with disabilities have many difficulties with evacuating and the evacuation lifestyle at the time of a disaster. After the Great East Japan Earthquake in 2011, the terms ‘people who require consideration during a disaster’ and ‘people who require evacuation support during a disaster’ were included in the Basic Act on Disaster Management. Guidelines concerning welfare rooms in evacuation centres, welfare evacuation centres and individual evacuation plans at the time of a disaster were created. However, residential facilities for persons with disabilities were not focused on evacuation. One of the factors was probably the fact that many residential facilities for persons with disabilities located on high ground were spared from tsunami damage in the Great East Japan Earthquake. The Law to partially revise the Flood Control Act, etc. (19th May, 2019) was enacted making it compulsory to create a plan to secure evacuation and to implement drills for owners and managers of facilities used by people who require consideration in potential flood areas that are designated in municipality local disaster plans. However, environment of stay at the evacuation center is not included in the plan.

This study documents the experiences of Keyaki no Sato (Social Welfare Corporation; Kawagoe City, Saitama Prefecture), a residential facility that was flooded above floor level during Typhoon Hagibis in 2019 in order to contribute to disaster-preparedness in facilities for persons with disabilities in the future (Fig.1). In recent years, there has been an increase in the frequency of natural disasters such as torrential rain due to global warming and it is considered that there are many facilities that urgently require responses.

The number of municipalities that had the Disaster Relief Act applied to them due to Typhoon Hagibis (2019 East Japan Typhoon) that made landfall on the 12th and 13th of October, 2019 from the Tokai Region to the Kanto-Koshin’etsu Region was 390 in 14 different prefectures and metropolitan areas (as of 1st November) and was the highest on record, surpassing even that of the Great East Japan Earthquake. In addition, the government applied Catastrophe, Disaster of Extreme Severity (1st time for a typhoon, October 18th) and emergency disaster in the Act on Reconstruction from Large-scale Disasters (2nd time, November 11th) to damage caused by this typhoon with Disaster Relief Act. This typhoon was named the 2019 East Japan Typhoon (Japan Meteorological Agency, 19th February, 2020).

In Kawagoe City, Saitama Prefecture, in addition to inundation in a levee, it caused the Ohyagawa River to break its banks and the collapse of an embankment on the Opegawa River into which the Ohyagawa River flows. In the city, 82 buildings were inundated above floor level and 262 below floor level (As of 14:00 on 23rd December, 2019, Saitama Prefecture Risk Management and Disaster Prevention Department). The peak number of evacuees was 4,960 (4,346 in 27 designated evacuation centres and 614 in 14 voluntary evacuation centers). When the disaster occurred, four designated evacuation centres were opened and by 25th October all of them were closed.

The overflow and collapse severely damaged Keyaki no Sato. Keyaki no Sato is in a triangular zone where the three tributaries of Irumagawa River (Ohyagawa River, Koazegawa River, Opegawa

River) converge. Four rivers merge near Ochiaibashi Bridge to form Irumagawa River. The collapsed embankment had been newly constructed to change the flow of the Ohyangawa River during the construction of a pumping station installed as a flood control response after the flood of 1999.

Of the 75 residents at the facility for persons with disabilities operated by Keyaki no Sato, 52 were evacuated in advance and 23 were evacuated vertically then with assistance from the fire service so we avoided any casualties. However, in the evacuation lifestyle of the following 6 months, the corporation had difficulties to continue the business and found the lack of a Business Continuity Plan.

Ten locations operated by Keyaki no Sato were swallowed up by muddy water and the water level exceeded three metres at its maximum. The 6 offices (16 buildings) were: (i) Hatsukari no Ie residential facility (5 buildings: 1 residential, 4 for work), (ii) three day care locations of type A, (iii) one day care location of multiple functions, (iv) five group home buildings, (v) one consulting support office, and (vi) prefectural support centre for persons with autistic disorders. Some of the buildings had been built on raised ground but they were all flooded above floor level and partially destroyed, with all equipment and facilities rendered unusable. The value of the damage to the facilities themselves was 400 million yen and was estimated at 960 million yen directly after the disaster. It took six months to restore the residential facilities so we are in extreme difficulty, although the duration of restoration was estimated 9 months directly after the disaster.

Here we give an overview of approximately 6 months from directly after the disaster, the circumstances of the typhoon, evacuation, evacuation lifestyle and restoration. We summarized what we learned. Some facilities for persons with disabilities have to be located in places that are vulnerable to disasters and expect other facilities to contribute to disaster-preparedness and responses at the time of a disaster.



Fig.2 Keyaki no Sato and its position in relation to the surrounding rivers (Adapted from Irumagawa River Basin Emergency Flood Control Project documents https://www.ktr.mlit.go.jp/ktr_content/content/000767282.pdf)



Fig. 3 Offices of Keyaki no Sato



Fig.4 Yoshiko Abe, at the entrance of prefectural support center which is built with a raised floor. The headquarter of the corporation is settled on the third floor of this building for 6 months after flooding. The line above her head shows the height the water reached.

2. The history of Social Welfare Corporation Keyaki no Sato

～ Overcoming local campaigns opposing the construction of facilities for persons with disabilities facilities～

In 1979, special needs education became compulsory in Japan and children with autism were allowed to go through compulsory education like everyone else. Up until then, there were children with disabilities who could not go through compulsory education because their entry to school was postponed. Even so, there was nowhere for these children to go after graduation from junior high school. Of these, many children with autism, which comes with serious intellectual disabilities, inevitably had to stay at home. For this reason, the parents of 21 children with autism formed the Keyaki no Sato Promotion Group (Promotion Group) in 1978 to work on constructing residential facilities for adults with autism. They were aiming for a residential facility for 50 people.

At that time, when building facilities for persons with disabilities, Saitama Prefecture required the founder to own land of approximately 4,000m² or more, and the consent of all residents who owned land within a radius of 300m. It was not easy to find land that corresponded to these conditions. In 1981, the Forestry Agency (former name) suggested a potential national forest site for construction of approximately 15,000m² in Hatoyama Village (former name) in the northwest of Saitama Prefecture. However, the residents of Hatoyama started a movement to oppose the construction of the facility and it became a social issue covered widely by the media. Saitama Prefecture acted as intermediary for the promotion group on numbers of places and they secured the present construction site which is surrounded by rivers. The flood hazard map was not offered at the time, but there was no other land available. It was shown in a potential flood area (3m and over) on the flood hazard map, later.

In 1985, the residential facility, Hatsukari no Ie, was opened. According to the information of flooding by local residents, Hatsukari no Ie was constructed on raised ground of 1.5m but during typhoons, the garden and car park, which were not on raised ground, flooded frequently. In 1999 August, 14 years after opening, Hatsukari no Ie was flooded for the first time when the Ohayagawa River burst its banks because of typhoon (total amount of rain fall was 330mm in Kawagoe City). The residential facilities were flooded 70cm above floor level and it took approximately 90 days to restore them. The group homes and the bakery were flooded 50cm above floor level and it took 10 days and 4 months each to restore. Trucks, machines and materials of one of the workplaces were washed away by the flood. During that time, the residents were evacuated to the gymnasium of Chichibu Gakuen (Tokorozawa City) for three weeks. Based on this experience, the two group home buildings, power supply facilities and the consulting support office that were subsequently constructed were built on raised ground of 1.5m to prevent flooding. In addition, in 2001, a pumping station was installed in order to prevent counter-current from downstream on the Ohayagawa River. Since then, there had been no flooding above floor level at Hatsukari no Ie.

3. 2019 Typhoon Hagibis and the evacuation of residents with severe autism

(1) Initial response (up to typhoon landfall, 12th ~13 : 00)

The huge typhoon was forecast to make landfall at 16:00 on the 12th (Saturday). Railways in the Tokyo area announced that they would suspend services from 10:00 on the 12th. At Keyaki no Sato, families of residents who were able to evacuate them to their homes were requested to do so on the 11th (Friday). Some residents usually went home at the weekends so this went smoothly. As of 9:00 on the 12th, the number of residents remaining in Hatsukari no Ie was 18 out of 40 and at the group home, it was 18 out of 35.

At 13:00 on the 12th, the Disaster Response Headquarters was established in front of the 1st floor front entrance of Hatsukari no Ie where the corporation headquarters office is located. The Head of the Disaster Response Headquarters was Yoshiko Abe, Chairman of the Board and four members of staff were assigned as Disaster Response Management Night-Watch Staff: Tsutomu Mizuno (Staff Management, Head of Consultation Support Centre), Takumi Chida (Headquarters Administrative Chief), Makoto Wada (Head of Disaster Response Committee) and Tomohiro Uchiyama (Headquarters General Affairs Manager). At Keyaki no Sato, in conjunction with forecasts of approaching large typhoons, the Disaster Response Headquarters was formed with two Management Night-Watch Staff around twice a year. For Typhoon Hagibis in 2019, a four-person system was implemented, due to the scale of the typhoon, the tremendous amount of rainfall predicted and past experience.

In order to share information quickly with Response Headquarters Staff (5 people) and managers from each office (9 people), SLACK (free app) was adopted. Up until then, they had been using e-mail and LINE on mobile phones to maintain contact with staff but there was the issue of not being able to send to all facilities simultaneously. By using SLACK, it was possible to send simultaneously and to spread not only information about the typhoon but also image data of the rising water levels of the rivers. In addition, managers of the offices that are dotted around were able to share information with each other in real time by sending their responses to each other. Furthermore, they shared information about support provided by various companies with staff using SLACK. It was also significant that it was possible to have a record of the experience of the disaster.

(2) Flooding of the buildings at residential facility Hatsukari and group homes

As forecast, an emergency heavy rain warning was issued in the Kanto Koshin'etsu Region which includes Saitama Prefecture at 15:30 on October 12th and the warning levels was 3 – 4. Ohayagawa River, which flows close to Hatsukari no Ie, started to burst its banks at 15:10 on the 12th. Following this, the car park at Hatsukari no Ie started to flood gradually. The rain got heavier at around 18:00 on the 12th and turned into a rainstorm that rattled the windows. Response Headquarters Staff put tatami mats, etc. on top of tables in work areas that were not on raised ground and susceptible to flooding in

order to minimize flood damage. At 19:00 on the same day, when going from the Response Headquarters Office to the work areas, the water level was up to the knees. Staff felt strong water pressure and it was difficult to walk. On SLACK, there was a report from Chida at 21:58 on the 12th saying, 'It has suddenly become a really fierce rainstorm'.



Fig. 5 A view around the Ohyagawa River from the 2nd floor of Hatsukari no Ie (Upper: 13:30, Bottom: 15:30 on October 12.)

The rainstorm went on until 0:00 on the 13th but at 1:13, the special heavy rainfall warning,

equivalent to warning level 5, was lifted. As the rainstorm has stopped, the Disaster Response Headquarters judged that the danger had passed and one Management Night-Watch Staff member went into another room to take a nap. However, around 1:00 in the morning, the buildings of Hatsukari no Ie started to flood. The buildings continued to flood and counter-current in the Ohyagawa River was confirmed visually. It was a sight that we had never seen before. The flooding continued after that.

The Response Headquarters, which was on the 1st floor, was moved to the 2nd floor along with computers, cash and documents from the safe. The flooding got right up to the first step of staircase. At around the same time, there was a message on SLACK from staff at the group home (5 staff members were there) saying that the group home had started flooding inside and that they were worried for their safety. The Response Headquarters gave instructions to the group home staff for vertical evacuation of residents to the highest position possible.

At 1:30 am, there was a sound like a huge explosion outside and the electricity went off. Almost simultaneously, along with the explosive sound, there was the sound of the generator motor but it flooded several minutes later and stopped working. It was confirmed that there was no electricity or water supply inside the buildings. Furthermore, the 1st floor fire alarm was flooded and broke so the siren would not stop. After that, flooding above floor level continued for a long time and stopped at the 3rd step on the staircase at the residential building (90cm). The counselling support office was flooded up to 3m.

The Response Headquarter made a request for assistance from the Kawagoe City Disaster Prevention Section at 4:00. As it was reported in the newspaper that Opegawa River had collapsed at dawn on the 13th, it was expected that the flooding of Hatsukari no Ie would increase as there was not only flooding from the burst banks of the Ohyagawa River but also higher water levels due to the subsequent embankment collapse on the Opegawa River .

(3) Evacuation conduct (from disaster to one week afterwards)

It took three locations and five days to find long-term accommodation for residents of the residential facilities Hatsukari no Ie and Ushioryo Group Home. The details of the evacuation are reported below. On October 12th (Saturday), the day the disaster occurred, 18 of the 40 residents at Hatsukari no Ie and 18 of 35 residents at group home were still at the facilities. At 11:00 on the morning of the 12th before the typhoon made landfall, 13 of the 18 residents including 3 wheel chair users took early lunch and began self-evacuation to Naguwashi Civic Centre with 3 of staff members in cars. Staff brought blankets and towels as futons. The remaining five with severe behavioral disorders were evacuated to the 2nd floor of the group home as it was considered that it would be difficult for them to stay calm with the other local residents at an the Civic Centre. As the group home is on slightly higher ground than Hatsukari no Ie, it had never flooded before. At 11:14, Kawagoe City issued a warning recommendation (warning level 4).



Fig. 6 Residents evacuated at the hall of Naguwashi City Center



Fig.7 A meeting room on the ground floor of the Community City Center (Oct. 14th)

Kawagoe City opened the nearby former Naguwashi Community Centre in the grounds of Naguwashi Junior High School as an evacuation centre (at 8:30 on the 12th) but the space was on the 4th floor with no elevator. Elderly people with back and leg problems were assigned the 1st floor but there was not enough space left for 13 people. Because we heard this information from a member of staff just before evacuation and because we wanted to evacuate the all residents as a group, when we talked to Kawagoe City Welfare Section for People with Disabilities, we were allowed to take over the multi-purpose hall at Naguwashi Civic Centre, which was not a designated evacuation centre Fig. 6). There was a total of 133 evacuees at the centre but there were no other evacuees in the hall. Even so, there were some users who couldn't sleep in an unfamiliar space. At 18:00, the order to evacuate (emergency, level 5) was issued.

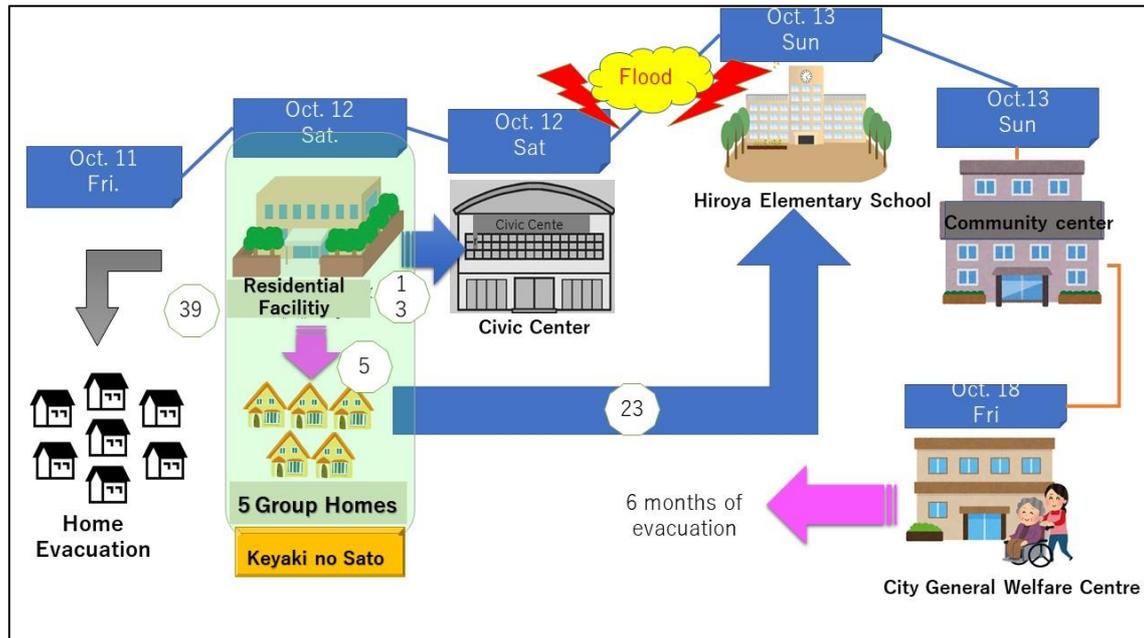


Fig.8 Keyaki no Sato Victim Evacuation Destination. Numbers in a circle show the number of evacuees.

Totally 32 people, 5 of residential users who stayed the group home, 18 group home residents and 9 staff members were rescued by fire department staff at 6:00 on the 13th, the following day and were transported to Hiroya Elementary School which was an evacuation centre. At 11:39 on the 13th, it was announced that evacuees would all be gathered in three evacuation centres in Kawagoe City and that the other centres would be closed. The evacuees at the Civic Centre were asked to move because we knew that the multi-purpose room that the residents stayed had been reserved for use by local residents on the afternoon of the 13th. However, there were no instructions concerning the next destination for evacuation. The fact that group home evacuees had been transported to the gymnasium of Hiroya Elementary School was shared with staff who had accompanied the residents to Naguwashi Civic Centre and they moved to Hiroya Elementary School at 10:00 on the 13th. However, as classes were due to start at the school on the 14th Monday, it was necessary to look for the next evacuation destination. As a result of discussions with Kawagoe City, 36 evacuees and accompanying staff members were moved to a 1st floor space in the former Naguwashi Community Centre (in the grounds of Naguwashi Junior High School) at 13:00 on the 13th. There was an inspection of the Community Centre by a public health nurse from the Japan Red Cross Society at 17:00 on the 15th and a report was made to Kawagoe City that sanitary conditions were not good (Fig. 7). As a result, 12 residents of Hatsukari no Ie was transferred to their 4th evacuation site in the gymnasium of Kawagoe City General Welfare Centre at 13:00 on the 18th (Friday). The gym was on the 2nd floor but there was an elevator and it was also possible to use the gym lobby and the male and female changing rooms. There were bathing facilities and a kitchen on the same floor. Following that, during the approximately six months up to March 25th, they ended up living in this Centre. When the heating was turned on in December,

humidity in the gym became 30% and member of staff suffered from sore throat. Figures 9 to 14 show facilities at the Centre.

It was quite difficult to predict how many days it takes to restore the facilities. It was predicted three months soon after the flooding and then nine months in late October and again six months in December. As the time taken for restoration was shortened, it was not complete restoration and it was defined as temporary restoration until we could move to a safe place so only the bare minimum of organization was done. We used what we could repair and kept the purchase of new items to a minimum. We could not predict what was going to happen with the period for the loan of the gymnasium being extended to the end of November, the end of December and then the end of March.

Twelve of the 35 group home users were able to use for free the building where Azemichi, a day service for the elderly held in the centre of the city, after it was abolished and from 17th October to 22nd March, two full-time staff were always on duty there. This was offered because it was an organization operated by former city council member, Mr Kurashima, a Keyaki no Sato trustee. we had to get additional fire insurance for Azemichi, because the installation of sprinklers is compulsory in group homes where people with severe disabilities live but the day service space did not meet these standards.

(4) Securing long-term evacuation destinations

Each facility of Keyaki no Sato has created an evacuation secure plan according to the government format to protect life and has implemented evacuation drills but planning for long-term evacuation once the building had flooded was not sufficient. Evacuation drills were implemented around twice a year at the first evacuation destination, the city-designated evacuation centre, former Naguwashi Community Centre (Naguwashi Junior High School). After the flooding in 1999, when the garden was submerged during a summer typhoon, we lifted the tatami mats in the living space, moved everyone to the former Naguwashi Community Centre, stayed one night and then came back the next day. We have to leave there in the morning because there were reservations for the conference room where we stayed.

There were two issues at the evacuation destination. The first issue was that the designated evacuation destination was moved to the 4th floor of the former Naguwashi Community Centre. Of the Hatsukari no Ie residents, three were wheelchair users but as there was no elevator at the community centre, it was not possible for them to get to the 4th floor. Evacuation drills included going to the building but no one had stayed there recently. We did not evacuate there even in typhoons and we did not have an understanding of the changes in circumstances inside the evacuation centre.

The second issue was that they had to move after evacuation because the centre was designated as having bad sanitary conditions according to a Japan Red Cross Society inspection. Because there was no elevator, we were offered the 1st floor of the former Naguwashi Community Centre which was

usually used for cleaning historical remains, such as earthenware, but as it was dusty, it was predicted that it would be judged as having bad sanitary conditions. The Community Centre didn't have any bathing facilities either so it was not suitable as a long-term evacuation centre.

One point that requires reflection is that long-term evacuation did not feature in the evacuation plan. As a result, we had to look for a place where 40 residents of the residential facility and 35 residents of group homes could live as well as a place to do their daily activities for additionally 20 day users after the disaster. It is well-known that it is often difficult for people with autism to use ordinary evacuation centres or temporary housing. It is necessary to evacuate with people with whom they have built a trusting relationship. We learned from the experience of the disaster that residential facilities have to secure evacuation destinations that can stand up to long-term evacuation on an everyday basis. We started to investigate long-term evacuation destinations immediately after the disaster happened and we hoped to build a temporary welfare facility or renovate a disused school as a temporary welfare facility but neither of these came to fruition.



Fig.9 Left: Beddings, Right: Partitions at the gymnasium.



Fig.10 We gradually organised rest space and work space in the gym. There was no TV antenna, so we showed recordings of programmes instead.



Fig.11 We did not just sleep in the gym. We also did our daily exercise there. Left: We hung Christmas decorations where evacuees with autism couldn't be reached and then strolled around looking at them. Right: Balance balls.



Fig.12 Bathrooms: entrance for men and women (left), and inside of the bathroom.



Fig.13 Left: A kitchen, Right: Using the gym lobby as a dining room (Christmas lunch)



Fig.14 Left: The locker room was used as a staffroom and storeroom. Right: Collecting laundry

4. External support

There was an extremely high number of decisions and responses that had to be made by the corporation and we regret that we did not think about long-term evacuation in advance. On the other hand, we had a lot of external support for restoration.

(1) Public support

First of all, we had public support. When there was something we needed, our first port of call was Kawagoe City Disability Welfare Section. When the disaster occurred, the Disability Welfare Section of the city arranged an evacuation center and send a rescue with a coordination of Risk Management Section. In the early morning of the 13th, 23 residents and 9 staff were rescued in a fire service boat and were transported to the evacuation center in city hall cars. We went from place to place four times but, at the gym of Kawagoe City General Welfare Centre, we gained additional two building management night-shift workers during our stay.

At the gym, we received bedding from the Japan Red Cross as well as cardboard beds from Kawagoe City. However, as we had a resident with pica who ate cardboard, we could not use the cardboard beds. Someone provided use with camp beds with covers but as we had residents who broke them, these were used for night-shift staff to take naps in the staff room. As wheelchair users developed pressure sores three days after the disaster, the city provided us with one wooden bed that the residents could not move themselves.

In addition, we received support with organising equipment, goods and human support during our stay at the gym from the Kawagoe City Social Welfare Centre and Saitama Social Welfare Council. Kawagoe City Social Welfare Council operates the Welfare Centre and the Saitama Social Welfare Council runs the Saitama Prefectural DWAT (Disaster Welfare Assistance Team).

However, as life in the gym was regarded as a temporary facility move rather than evacuation, the corporation had to supply basic necessities such as meals. At the time, we were buying lunch boxes and bread but, from the end of December, we were able to use the kitchen on the same floor and, on

the last day of January, the corporation bought a freezer.

When staff who were providing support at the gymnasium worried about the employment continuity and stable payment, a public health nurse was dispatched. There was a total of 8 visits for groupwork and individual sessions from the 11th November to the end of March.

On 1st February, partitions (Alpha panel, W900xH2100) were installed in the gym according to our wishes. Boards were stuck together with strong magnets and each section was large enough to lay down three futons. At the beginning, they made around six sections for two futons but we requested expansion and this was increased to 10 sections for three futons on 16th February. This secured sleeping space for 20 people with two people per section and it was possible to accommodate some evacuees who had stayed home and those who had been moved to other facilities.

There was public support for the corporation but there was no system of public support for individual residents who had lost all their possessions. However, contributions were distributed through the City Hall, each resident received 780,000 yen in four payments from March to August, 2020.

For disaster restoration of facility buildings, we received also support from the City Hall with our application for the Social Welfare Facilities Disaster Restoration Costs government subsidy. Although it was possible to use Treasury subsidies or five sixths of the costs for facilities, Treasury subsidies for equipment had the limit. After the Hokkaido Eastern Iburi Earthquake of 2018, each facility is allowed to use the limit. From the supplementary budget, we proposed additional support in March 2020.



Fig 15 Left: The first author the day after the typhoon. The white building on the right is the residential facility and the brown building on the left is the consulting support office. Right: Bulldozer removing the straw.

Before the Disaster Volunteer Centre began services, the Saitama Prefecture Developmental Disorder Welfare Association recruited recovery volunteers from the staff of facilities for persons with disabilities. From October 17 to 23, we received support from almost 219 volunteers including students from Saitama Prefectural University, Japan College of Social Work and Nippon Institute of Technology. After that, staff worked on the clean-up and by one month and half after the disaster at the end of November, the work of getting rid of all the rubbish was completed through human effort. Compared to 1999 when we were inundated above floor level and it took three days to get rid of all the rubbish, the damage this time was much greater.

In addition, through Kawagoe City Hall, Kaercher Japan washed the mud from the walls of the facilities that had been flooded with a high-powered hose. Fast Retailing provided clothes and Food Bank provided meals to those who were staying in the gym.

Just as we returned to the restored Hatsukari no Ie in April, the state of emergency for COVID-19 was announced and volunteers from outside were not allowed to enter and day users had to stay at home until the 16th of June. From the 17th of June, cleaning of important documents that had been water damaged began through the Kawagoe City Volunteer Centre and with the cooperation of the Recovery Volunteer Team ReVA (Ageo City) and Tenrikyo Disaster Relief Hinokishin Corps.



Fig.16 Disaster volunteers bringing water damaged household items out into the Hatsukari no Ie car park.



Fig.17 Cleaning documents

(2) Supplies

Thirdly, we got support in the shape of goods from many organizations and individuals. We received clothing from Uniqlo in one week after the disaster. There wasn't enough for everyone but parents and other related people gave us underwear so we managed, more or less, to clothe everyone. As we had evacuated without taking changes of clothes, staff members purchased clothes for evacuees on the next day of typhoon. We also needed to wash clothes immediately and we used washing machines

at a facility for disabled persons in the city. From the middle of December onwards, we were able to ask staff from a facility for the elderly which had also been affected to do the washing.

Due to changes of environment, sanitary products, underwear and non-essential grocery items that were even more essential than before were donated by individuals who visited as support workers through the Saitama Prefectural Social Workers' Association, etc. We were introduced to Amazon Support Goods Matching and Smart Supply (<http://smart-supply.com>) with the information from NPO Peace Boat in November through an acquaintance who had heard about our lack of clothing. However, it had registered the Smart Supply system at the beginning of March because staff members did not have the time to research how to do it so volunteers helped.

Association for Aid and Relief Japan provided us with a total of five sixths of the financial support we needed, because the government did not cover for household items such as special-order desks that users cannot move. For five sixths of the costs of restoration of facilities and equipment, it was possible to use Treasury subsidies but Treasury subsidies for equipment had an upper limit and the assistance did not cover the total cost of the damage. We had to give up on restoring the bakery and equipment and supplies with the high costs that would be used in the work building because the governmental assistance did not cover the total cost of the damage.

The five vehicles we had moved to a nearby car park that had never flooded had sustained flood damage or had been stolen. Orix Miyauchi Zaidan (Public Interest Incorporated Foundation) provided us with one vehicle.

(4) Support from auxiliary personnel

Fourthly, we received support from auxiliary personnel for the residents who were evacuated to the Kawagoe City General Welfare Centre. From 19th October to 20th November, around 3 team members a day (total 206 team members) were dispatched from Saitama Prefectural DWAT (Disaster Welfare Assistance Team). In addition, we received support with organising equipment, goods and human support during our stay at the gym from the Kawagoe City Social Welfare Centre which operates the Comprehensive Welfare Centre and the Saitama Social Welfare Council which runs the Saitama Prefectural DWAT.

On the weekends from 30th November to 29th December, we received support workers from Arakawa Council of Social Welfare. Furthermore, the Japan Organization of Clinical Development Psychologists provided relaxation with balance balls and recreation with residents every Tuesday. At the end of the year, the staff greatly appreciated the sessions they had with a chiropractor, Mr. Takehide Hanada (Sports chiropractic, Felio).

The Japan Consulting Support Specialist Council and its Saitama branch helped to conduct home visit surveys to ask about the needs of residents who evacuated home. The association also coordinated to use community welfare services during the period of their home stay.



Fig. 18 left: Opportunity for recreation with the help of volunteers, Right: Provision of chiropractic therapy to staff

(5) Supports by experienced persons

Fifthly, assistance from people with experience of disasters was really valuable depending on timing. We asked Keiichi Kikumoto from the Social Welfare Council of Tsurugashima City, next to Kawagoe City, and Yayoi Kitamura, a researcher at National Rehabilitation Center for Persons with Disabilities to help with the overall direction of organising. This was because we knew they have experience of supporting people with disabilities since the Great East Japan Earthquake. Dr. Kitamura gave us a variety of information. Mr. Kikumoto taught us that if there were goods that we required, we should immediately tell Kawagoe City and that we should use the Disaster Relief Law to purchase them. Even so, we were hesitant about what it was best to ask for. On the third day after the disaster, when one of our residents with a wheel chair developed the early symptoms of pressure sores, Mr. Kikumoto proposed asking for beds to be supplied and accompanied us when we went to City Hall.

We held a gathering for discussion for managerial staff as psychological support with a professor of psychology, Asami Maekawa who has experience of support for disaster in the second half of December. Up until then, some staff members had totally four minor traffic accidents during work duties and staff had subjective symptoms such as impaired vision. In January, several managerial staff members took time off with colds. The professor of psychology heard about the situation from managerial staff and provided the following information: 1) there is no need to rest for a long time so take short breaks during the day, 2) use a closed-off place where other people cannot see you for breaks, 3) it is good to spend time for themselves such as reading or listening to music, 4) the number of people who left their support jobs due to exhaustion a year after the Great East Japan Earthquake increased, and 5) experiences that work together among staff are also important. At the beginning of December, the executive staff organised a thank you party for all the staff and their families. In January, several executive staff members took time off with colds.



Fig.19 Meeting between managerial staff and official psychologist

Information from damaged social welfare corporations by previous disasters was helpful when we were planning restoration. Through an introduction from an acquaintance, the corporation received information by e-mail and phone about the public support that damaged facilities had and had not received from Shoshinkai in Ishinomaki City which was damaged by the Great East Japan Earthquake and information about equipment and items that are provided to temporary welfare housing from Atsuma Welfare Council that was damaged in the Hokkaido Eastern Iburi Earthquake.

(6) Donations and contributions

We received contributions and donations totalling around 30 million yen from the Autism Society Japan, the Japanese Association of Autism Support, the Japan Association on Intellectual Disabilities, the Nippon Signal Co., Ltd. as well as from individuals and other groups.

5. Restoration / recovery policy: moving and temporary emergency welfare facilities

Policy decisions on restoration and recovery continued to worry corporation executive staff until the end of December. Thinking about the recent increase in scale of typhoons and the two experiences of large-scale flooding at the residential facility, it was clear that restoring the residential facility on the same site did not guarantee the safety of residents. However, it was difficult to decide whether restoring the facility on-site, moving to a new site, building temporary welfare housing or renovating an unused facility until the move. We have many regrets regarding our lack of Business Continuity Plan and Recovery Plan.

(1) Procedures of governmental fund for recovery

Considering restoration and moving at the same time is extremely difficult funds-wise. There was no time to hesitate in examining whether to restore or move; we had to get on with the procedures for

restoration even though we wanted to move to higher ground. The reason for this was that the deadline for the application for government restoration funds was the second week after the disaster. The application deadline to national government for equipment and furniture was 23rd October and that for facility restoration works was 31st October (extended to 15th November). The quote for costs and time schedule for restoration of the affected facilities was ready on 29th October; the schedule was 9 months, total costs for construction and repairs was 960 million yen and equipment restoration costs were 150 million yen. The Disaster Relief Act enforces grants (Treasury or City) as social welfare facility disaster recovery costs to cover three quarters of total recovery works costs while the remaining quarter is to be covered by the corporation. The corporation was responsible for one sixth of the costs as it was later designated as an extreme disaster according to the Large-scale Disaster Recovery Law.

(2) Difficulties on moving

We decided as a corporation that it was difficult to achieve the obligation of securing a safe and secure life for residents on the same land. However, there were several issues that could not be resolved with respect to moving such as a site, capital, living base until moving and continuing operations. Because we require funds of between 700 million to a billion yen for moving, we need Treasury. In order to receive Treasury aid, we need to apply in the May of the year following the disaster. Moreover, when obtaining Treasury aid for moving, a disaster is not a special reason and there was no guarantee that supply would be determined in the applicable financial year. At the end of November 2019, there was some light at the end of the tunnel with a leased land in the city. However, we were not able to manage the fund for moving and for restoring at the same time.

(3) A temporary welfare housing

As a method of making moving possible, we made request to build a temporary welfare housing to the City, totally 7 times from October 15th to November 21th. Because we did not get a positive answer from the city, we visited Cabinet Office in early November. After asking Cabinet Office at the middle of November, Kawagoe city, Saitama Prefecture and the Cabinet Office began working together on this issue. With the reason of ‘the City cannot make the decision alone so discussions are in progress with the Prefecture and the national government’, the answer from the relevant departments at the City was always, ‘the only possible way of achieving the request is 50-50.’ Two temporary welfare housings were constructed for the first time in Atsumacho after the 2018 Hokkaido Eastern Iburi Earthquake. In general, emergency temporary housing was built by the Prefecture on land provided by the City. These were standard one- and two-bedroom apartments for households, however severely autistic people are not able to stay alone in apartments, but require a similar style of housing for with assistance by provided support workers. They did not only need a living space but also a place to do their daily activities.

At the end of November, while the City and the Prefecture were making enquiries with Hokkaido, the construction of emergency temporary welfare housing as the first model in Saitama prefecture was made possible. However, this came with difficult conditions. The first condition was to prepare land by the affected corporation for the facilities where residents move from temporary welfare housing. The second condition was to submit a pledge to organize a moving destination by the end of the two years and three months usage limit for temporary housing. The third condition was that the 19 people who evacuated home before the disaster were not eligible for emergency housing. As mentioned above, there was no guarantee that Treasury aid would be determined in the following year to achieve the second condition. As there was a time limit, we had to give up on moving into the temporary welfare facilities. The third condition was withdrawn on December 5th by Cabinet Office, but we heard it from the city on December 13th. We judged that it would be difficult to fulfil the 2nd and 3rd conditions and we asked a restoration company to start work on the 4th of December.

On the other hand, the special nursing home for the elderly (80 residents) that was affected in the same city by Typhoon Hagibis decided to move into temporary welfare housing installed by the Prefecture from April 2020. The land for the facility was the grounds of an disused elementary school where Keyakii no sato asked to use to the city on the 23th of October. However, the number of disaster victims eligible to move into emergency temporary welfare house was limited and there was the restriction of not being able to fill the vacancy if a resident were to pass away. When designing facilities and selecting equipment, the staff of the special nursing home for the elderly was not consulted until the last stage.

(4) Long-term evacuation site

We also looked for places that could replace temporary welfare housings. One week after the flood, with the cooperation of city and prefectural council members, we considered renovating disused hotels or Japanese inns, a disused elementary school and a disused day care centre for the elderly to try to secure both living space and space for daily activities. However, it was not possible to get licensing by the end of December.

Soon after the flood, we had a proposal for construction of temporary welfare housing from a private construction company, we could not take it because we heard that there were some limitations on privately built temporary housings. In the Great East Japan Earthquake, wooden temporary welfare housing was built for individuals with disabilities through financial assistance from the Nippon Foundation. However, reflecting on that time, not being able to receive public support for equipment such as negotiations to install six electrical appliances provided by the Japan Red Cross in the temporary housing and restrictions such as not being able to receive public support for dismantling costs were abandoned. The future issue is to assemble support from multiple private organizations to build temporary welfare housing, including equipment which is offered to public temporary housing

and cost for dismantling.

6. Transfer of Residents

Although the affected corporation requested that an evacuation location was secured as a group, multiple public institutions and organizations for persons with disabilities recommended that the residents should be split up and moved to different facilities. This method was used at a special nursing home for the elderly that was damaged at the same time. Seventeen facilities for elderly had already arrived to the evacuation centre to pick up evacuees of affected facilities for elderly on the day they were rescued. Saitama Prefecture Developmental Disorder Welfare Association adjusted the number of evacuees that it was possible to house in places such as affiliated facilities that support persons with disabilities and respite care facilities. The idea of dispatching and paying staff at the facilities to which the residents with autism moved was also proposed, but scattering the staff was a difficult decision. This was another painful reminder of the necessity of having a business continuity plan. One of service providers advised elaborating a resident transferral plan with a group of 5-10 residents with accompanied with one or two staff members for at least initial 3 days. However, none of the 21 transferred residents appeared to be candidates for this proposal at the time.

The corporation decided to split the residents up and move them at the beginning of December, because there was a quote that it would take 9 months to complete restoration works and because there was no progress with temporary welfare housings or long-term residential facilities. However, moving did not progress easily, as the corporation expected. Even if we had provided 71 people with residential places on the 21th of November (90 people at the beginning of December), there were only one parents who consented to these moves. Rather than moving to another facility, there were parents and guardians who chose 1) for the resident to stay at home, only going to the gym where residents were living during the day or 2) for the resident to make short stays at the gym. Many of the residents were over 50 years old and many of the parents and guardians were over 70 years old and living alone. As the residents had severe intellectual disabilities or autism and as most of them had severe behavioural disorders, it was estimated that long-term evacuation at home would put both physical and mental burden on the parents and guardians. After adjustment, the highest number of people to be moved was 21. It was not easy to decide whether to move the residents with less severe disabilities who would easily get used to life in the new place or to move the residents with more severe disabilities who were having difficulties with life in the gym. There were some cases in which the new place did not suit the person, some in which the person caused issues and came back after one day and cases in which the corporation had to use its insurance to cover damages to property at the new place.

The concern on splitting up the residents was the decrease in operation costs. Operation costs for facilities that support persons with disabilities are calculated on a daily basis. If the residents had been moved to other facilities, income to the disaster-affected corporation would have been only that

corresponding to the number of people who had stayed at the General Welfare Centre. Income of the corporation from the six months of evacuation was 40% of normal income. Just under 80% of operation costs went on paying salaries but even through there was no support work for the staff, we could not reduce their working hours. Work such as facility restoration, contact and adjustment with related organizations and families and creating complex documents for submission increased after the disaster. In November, we communicated our wishes to our member of parliament but the only month that we were able to request the budget for operation costs equivalent to the previous three months. This point has been repeatedly brought up by affected facilities since the Great East Japan Earthquake. Only basic remuneration operation costs were covered by the government, when the support by the welfare corporation to evacuees who had stayed home was authorized.

Workplaces that we had been leasing outside were reopened on November 5th. We leased another place for implemented daily activities until 25th of November, once power and water supply had been restored to the affected areas. We also leased the other places for daily activities for group home users and day service users. The residents from the 2nd floor of the group home went back to the cleaned home on December 16th.

The number of residents requiring support decreased but as they were in an environment which was not satisfactorily organised, it was not possible to reduce the number of people supporting them in accordance with this. We also provided support patrols for residents who has been split up. In addition, the staff spent more time than usual on work that they were not used to doing in order to get back to normal. Another issue is the communication between staff members working on restoring and staff members supporting users. Financial advice from the government said that it was preferable to guarantee two months of operation costs but we earnestly hope for measures to pay staff wages in cases in which it is estimated that residents will have to be moved from more than two months.

7. Lessons learned: New model for local evacuation centre for residential facilities for persons with disabilities.

The lessons learned by Keyaki no Sato from the damage caused by Typhoon Hagibis were as follows. We present them here as we imagine that other facilities located in places that have a high risk for flooding might have the similar issue. That is creating a specific evacuation plan (or business continuity plan) or a restoration plan. The corporation began preparing for the next typhoon season. With this disaster, we really experienced that it is difficult for a Social Welfare Corporation to create an evacuation plan for residential facilities for persons with disabilities as prescribed by law without help. In particular, if evacuation is going to be long term, it is essential to have the cooperation of the administration such as public funds and private sectors to secure an evacuation destination which should be prepared on a regular basis.

Firstly, an evacuation plan requires a place where people with disabilities can stay long-term in a

group for at least two months, when there is a danger of long-term submergence. This is because it took two months to get a handle on the recovery plan. It is preferable that it is within an area in which it is possible for staff to commute. This was because the multiple proposals we received to move the group as a whole were either outside of the city or outside of the prefecture and staff could not commute from their homes.

Secondly, in preparation for evacuation to the closest designated evacuation centre when a disaster occurs, it is recommended to communicate with local residents on a regular basis to establish understanding about the facilities and disabilities so that we can co-exist in evacuation centres or public facilities. In Kawagoe City, as there were limited places with a high risk of disasters, most residents were not affected and wanted to use the hall to which we had evacuated the day after the disaster because they had reserved it for a dance presentation. On the other hand, many community centers in the other cities closed the day after the disaster, because most areas of the cities were damaged. We hope to use local designated evacuation centres or public facilities for several days by cultivating understanding of local residents on an everyday basis about persons with disabilities.

Thirdly, it is recommended to discuss on temporary welfare housings with the local government in advance so that are installed promptly rather than general temporary emergency housing. It is preferable to prepare a space that it is possible to evacuate to as a group on a daily basis. For example, preparing the site for temporarily welfare housings or re-using a disused elementary school. The school has multiple classrooms of a suitable size, optimal for reconstruction as residential facility units. Individual units for five or six people can be created in one classroom using partitions to separate them. If there are desks and chairs, the foundations of a work space for people with autism can be created. It can be used as a work space (living care work, etc.) for the daily activities of facility residents on a regular basis. As there are multiple classrooms, we can recreate the same work spaces in 5 – 10 rooms. It could also be opened to the general public as a space for individual offices or recreational activities for the elderly and children. We could prepare simple beds and food stores to make it possible to stay overnight. It would be good if there as a shower but there are also methods such as building temporary showers after a disaster has occurred or using container trucks.

We are interested in operating the facility according to the Designated Manager System. Cleaning and keeping supplies are employment opportunities for corporation users. School grounds are used for gatherings of local residents.

Fourthly, if it is not possible to organize group evacuation, it is necessary to look at guaranteeing operation costs if residents are moved to other facilities.

Fifthly, considering the prevention of contagion such as through COVID-19, there is merit in investigating evacuation of corporation users and staff in small numbers to ordinary families in the city, particularly to houses where elderly people live alone or live with their spouses. By having users help at such houses with the garden or shopping on a regular basis, users and local residents will get

to know each other. This will be another option to put in an individual evacuation plan.



Fig.20 Image of work space partitioned into classrooms. (Reproduced with permission from ‘Common Space Nakatsu’)