

# **The Great Eastern Japan Earthquake**

(GLIDE: EQ-2011-000028-JPN)

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## **In depth damage report by affected cities and children**

SEEDS Asia



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## I. Overview

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With the massive earthquake and the following tsunamis happened on 11 March 2011 (14:46 JST), northern part of Japan was severely damaged. Complete picture of total loss is still not seen as the number of death is increasing and investigation on various damages is still under way. After one month from the disaster, the picture is gradually unveiling as the search operation continues. The casualties and missing exceed 28,000 and many facilities were destroyed. There still are 162,000 evacuees in 2,300 shelters.

There are some agencies updating figures daily but some information is available only in Japanese. This report lists consolidated in-depth figures on damage on human, housing and building, fire cases, situation of evacuation shelters based on the information available at the time of reporting. It will also list detailed damage situation by cities in major affected Prefectures.

This report will also describe current situation on the affected children who are one of the vulnerable population among the affected community and need strong support.

As part of our response to the Great Eastern Japan Earthquake, SEEDS Asia supports the affected communities by compiling humanitarian information on the ground in the affected area to be disseminated to the greater humanitarian community.

## II. The Earthquake and Tsunami: Their Impact

### Situation of Human Damage

The National Police Agency (NPA) issues the situation of human damages caused by the Great East Japan Earthquake of 11 March 2011 and its related aftershocks. The table was compiled based on the data available at NPA website and show number of people killed including children under age of 15, those who are missing and injured.

<Table 1<sup>1</sup>: Human Damage by Prefectures>

Prefectures	death	(children under 15)*	missing	injured
Hokkaido	1			3
Aomori	3		1	61
Iwate	3,838	40	4,116	154
Miyagi	8,086	345	7,261	2,917
Akita				12
Yamagata	2			29
Fukushima	1,245	27	3,173	239
Tokyo	7			77
Ibaraki	23		1	691
Tochigi	4			134
Gunma	1			35
Saitama				42
Chiba	18		2	223
Kanagawa	4	1		128
Niigata				3
Yamanashi				2
Shizuoka				4
Mie				1
Kochi				1
Amount	13,232	413	14,554	4,756

\*Major news paper recently quoted the Ministry of Health, Labor and Wealth that 82 children became orphaned in major affected Prefectures: Iwate - 44, Miyagi - 30 and Fukushima - 8. Please see more details on the affected children in latter part of this report.

<sup>1</sup> Damage Situation and Police Countermeasures, <http://www.npa.go.jp/archive/keibi/biki/index.htm>, 12 April 2011

## Situation of Damage on Housings and Buildings

There are great number of housings and building affected by the disaster. The tsunami occurred after the earthquake is considered the main cause of the damage. Residential buildings are usually lower and many videos of the tsunami destructing the down were repeatedly broadcasted. Below table<sup>2</sup> shows number of buildings damaged by affected Prefectures.

<Table 2: Damage on Housings and Building by Prefectures>

	Destruction		Washed Away	Burnt		Inundation		Damaged	Damages In non residential
	Completely	Partially		Completely	Partially	Above floor	other		
Hokkaido						294	433	5	473
Aomori	272	970	6			14	12	51	1,225
Iwate	18,742	1,024		13 (both)				550	172
Miyagi	36,637	3,390		162 (both)		36	23	6,153	5,094
Akita								3	3
Yamagata	37	80							
Fukushima	2,417	959		77	3	120		6,945	470
Tokyo	3	6		3			2	239	
Ibaraki	533	2,808		39 (both)		1,396	546	76,596	2,376
Tochigi	132	1,130						32,050	295
Gunma		1						14,365	195
Saitama		5		1	1		1	1,800	33
Chiba	650	1,636		3	3	758	575	15,612	109

## Number of Fire Cases

Oil and fuel spill due to the earthquake and tsunami resulted in number of cases of fire. Limited access to the sites by the fire engines delay the fire fighting efforts. Table 3<sup>3</sup> shows the number of fire cases reported and those that were controlled.

<sup>2</sup> The table was compiled based on the available information from Damage Situation and Police Countermeasures, <http://www.npa.go.jp/archive/keibi/biki/index.htm>, 12 April 2011

<sup>3</sup> The table was compiled based on the available information from Damage Situation and Police Countermeasures, <http://www.npa.go.jp/archive/keibi/biki/index.htm>, 12 April 2011

**<Table 3: Cases of Fire by Prefectures>**

Prefectures	Case Number	Controlled
Aomori	5	5
Iwate	26	26
Miyagi	195	194
Fukushima	14	14
Tokyo	35	35
Ibaraki	39	39
Gunma	2	2
Saitama	13	13
Chiba	14	14
Kanagawa	6	6
Shizuoka	1	1

### III. Situation of Evacuation Centers

After one month from the disaster, there are great number of people staying in evacuation shelters. Some people returned to their homes and some stays back. For those whose houses were collapsed or damaged, they will need to wait untill their temporary houses will be completed. In some area, life lines are still not recovered and people choose to stay at the shelters as they do not have access to daily meals or heater. Frequent aftershocks are aslo keeping the evacueess staying at the shelters. In Fukushima Prefecture, people staying in within 30 kim periphery of the nulear plants are taking refuge at the evacuation centers. The number is growing in both those who stays within Fukushima and leave to nearby Prefectures. Table 4<sup>4</sup> shows the number of evacuees and the evacuation shelters. Schools are often used as evacuation shelters and the numbers are also indicated. There are people who cross the Prefecture borders and the origin of the evacuees are described.

<sup>4</sup> The table was compiled based on the available information from Damage Situation and Police Countermeasures, <http://www.npa.go.jp/archive/keibi/biki/index.htm>, 12 April 2011. We have refered to the information by the Ministry of Education, Culture, Sports, Science and Technology for numbers of Schools that are used for evacuation shelters.

**<Table 4: Number of evacuees and shelters by Prefecture>**

Prefectures	Evacuees	Number of Shelters	Shelters in Schools	
Hokkaido	736	218		people from Iwate, Miyagi, Fukushima and etc
Aomori	920	236		including people from Iwate, Miyagi and Fukushima
Iwate	45,319	376	52	
Miyagi	48,956	433	116	including people from Fukushima
Akita	539	99		people from Iwate, Miyagi and Fukushima
Yamagata	1,786	45		people from Miyagi and Fukushima
Fukushima	24,809	238	49	
Tokyo	915	25		people from Iwate, Miyagi, Fukushima and etc
Ibaraki	732	49	1	including people from Fukushima
Tochigi	1,080	27		including people from Miyagi and Fukushima
Gunma	2,802	55		people from Miyagi, Fukushima and etc
Saitama	3,488	49		people from Iwate, Miyagi, Fukushima and etc
Chiba	1,144	62	1	including people from Fukushima
Kanagawa	534	71		people from Miyagi, Fukushima and etc
Niigata	5,142	60		people from Iwate, Miyagi, Fukushima and etc
Yamanashi	819	148		people from Miyagi, Fukushima and etc
Nagano	879	102		people from Iwate, Miyagi, Fukushima and etc
Shizuoka	743	43		people from Miyagi, Fukushima and etc

Below are summary of facts reported by major newspapers related to the evacuation shelters.

- 162,000 evacuees are still in 2,325 shelter
- Shelters have been over all well managed
- Serious problems are lack of privacy, including
  - difficulty in breast-feeding
  - difficulty in medical activities
- Lack of sanitary and health facilities
  - lack of medicine
  - lack of bath, lavatories (SDF and NGOs helping evacuees to take a bath )
  - difficulty in ensuring the mental and physical health
- Provision of temporary houses is the top-priority issue.
- Many municipalities facing difficulties in finding lands for temporary houses as well as construction materials.
- Many evacuees tend to wish to move with their neighbors to another area, in order to prevent

any stress and frustration when they get to new places.

- Many evacuees feel concerned whether they can still stay at their shelters in schools, since many schools will start new semester. Communication between shelter managers and school teachers/education officials are needed for smooth transition.

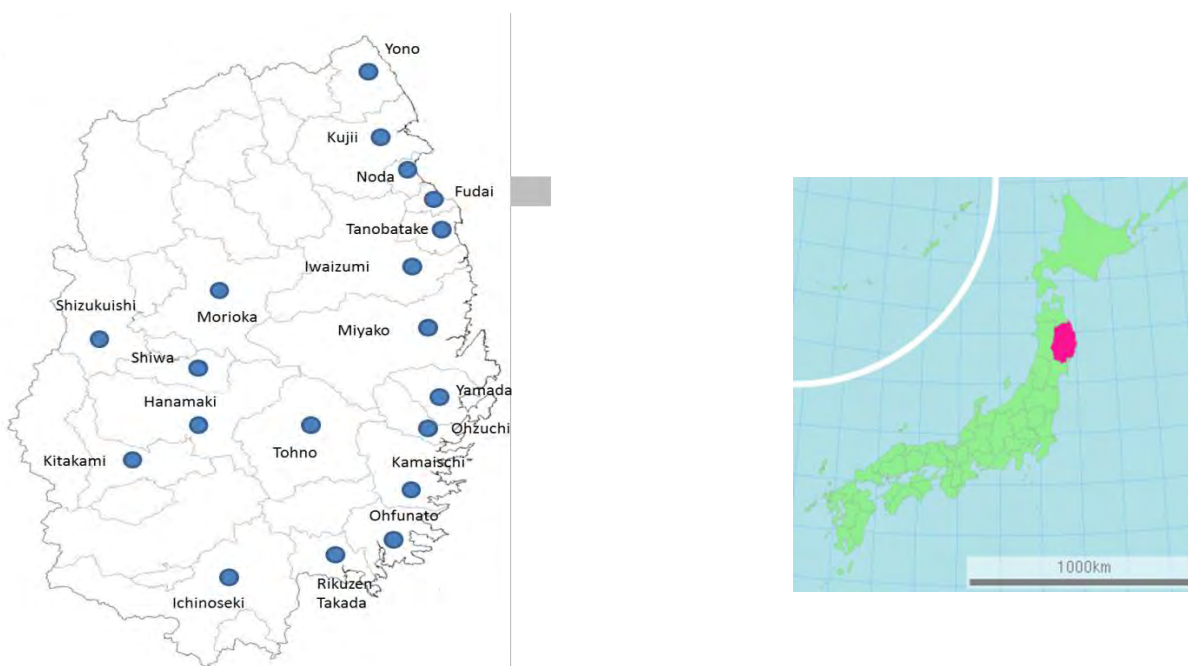
Below are summary of facts reported by major newspapers related to the evacuees.

- Lack of Foods and daily commodities
  - The situation changes daily and by the demography of the evacuees at each shelter
    - Clothes, underwear, socks, work gloves, paper diapers (for children and the elderly), sanitary products, tissue, pocket warmer, hand creams,
    - Drinking, instant foods, packed foods,
    - Stationeries, loud speakers, cars, buses, etc
- Lack of work
  - Due to loss of livelihood and destruction of materials and tools for their work and living, the affected people are seriously concerned about their future work and life.
  - The government is trying to create new jobs in the reconstruction work,
- Lack of communication
  - Dissemination of information between governments and local residents needs to be improved
    - TV and radio: disconnected (even emergency radio system was disconnected)
    - Internet disconnection
    - Mobile phone disconnection
  - With recovery of electricity and phone line, general communication system will be resumed within April, but it will be delayed in the severely affected area
- Decision on school opening
  - In the affected area, the school opening will be realized around the mid to end of April. In Minami Sanriku and some cities, some schools will open in early May



## VI. Situation by Prefectures

### Situation of Affected Area in Iwate Prefecture<sup>5</sup>



<Table 5: Situation by cities, Iwate Prefecture>

	Death	Missing	Evacuees	Shelters	Electricity	Gas	Water
Rikuzen Takata	1,245	1,209	16,482	88	Partial		Partial
Ohfunato	289	205	6,563	56	Partial		Partial
Kamaishi	709	602	5,271	63	Partial		Partial
Ohzuchi	599	1,006	7,011	36	Partial		Partial
Yamada	533	378	3,446	33	Partial		Partial
Miyako	400	682	3,899	42	Partial		*
Iwaizumi	6	0	234	5	Partial	Recovered	*
Tanobatake	14	24	347	4	Partial		*
Fudai	0	1	1	1	Recovered	available	Recovered
Noda	37	0	329	9	Partial		*
Kuji	2	2	0	0	Partial		Recovered
Morioka	0	0	319	3	available		available
Hachimandaira	0	0	120	1	available		available
Shizukuishi	0	0	355	5	available		available
Shiwa	0	0	71	1	available		available
Hanamaki	0	0	317	4	available		available
Tohno	0	4	81	2	Recovered		Recovered
Kitakami	0	0	128	11	Recovered		Recovered
Ohshu	0	0	120	45	Recovered		Recovered
Ichinoseki	0	0	75	3	Recovered		Partial

\*recovered except for tsunami affected areas

<sup>5</sup> Source: Iwate Prefectural government, Death and Missing, as of 12 April 2011, other information as of 10 April 2011



## Situation of Affected Area in Miyagi Prefecture<sup>6</sup>

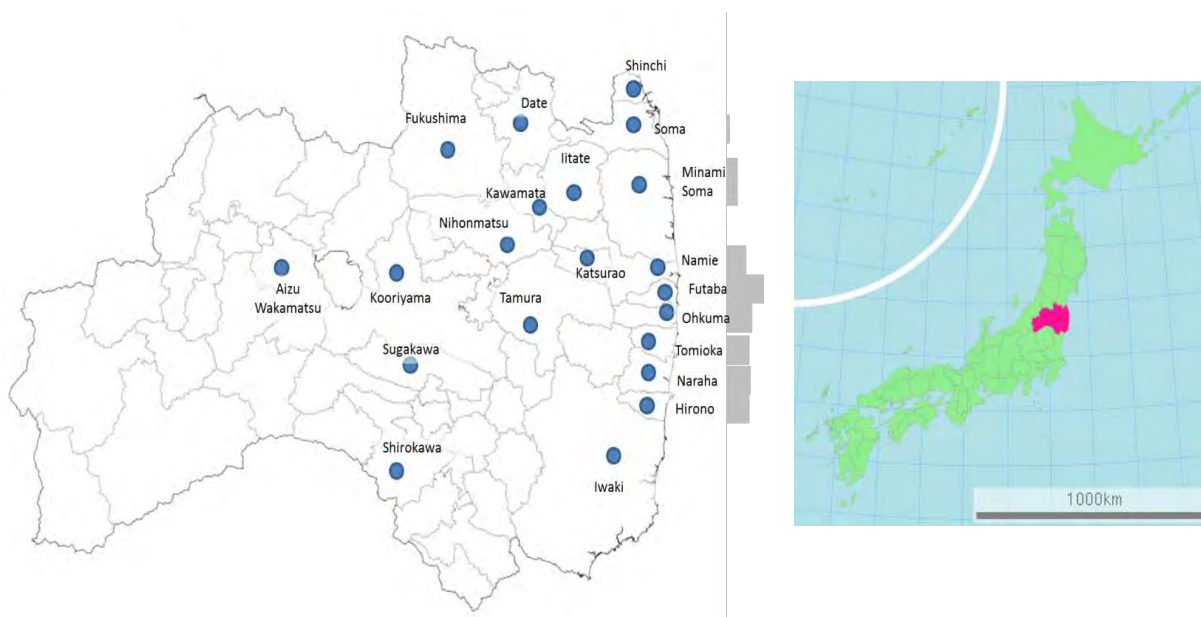


<Table 6: Situation by cities, Iwate Prefecture>

	Death	Missing	Evacuees	Shelters	Recovery status		
					Electricity	Gas	Water
Sendai	531	2400	2829	31	Almost	Partial	Recovered
Ishinomaki	2698	2,770	14776	125	Almost	Totally damaged	Partial
Shiogama	18	2	611	6	Almost	Almost	Almost
Kesen'numa	722	1,408	6907	76	Almost	Partial	Almost
Shiroishi	1	0	64	2	Recovered	No damage	Recovered
Natori	866	1,000	1388	12	Almost	Almost	Almost
Tsunoda	0	0	80	2	Recovered	No damage	Partial
Tagajo	180	12	1206	3	Almost	Almost	Almost
Iwanuma	168	15	545	3	Recovered	Recovered	Recovered
Tome	0	8	799	7	Recovered	No damage	Partial
Kurihara	0	0	224	4	Recovered	No damage	Partial
Higashi Matsushima	920	176	3792	59	Partial	No damage	Partial
Ohsaki	4	0	620	14	Recovered	No damage	Almost
Shibata	2	0	68	1	Recovered	Recovered	Totally damaged
Watari	247	41	1483	5	Almost	No damage	Partial
Yamamoto	613	184	1990	7	Partial	No damage	Partial
Matsushima	2	7	270	3	Recovered	No damage	Almost
Shichigahama	60	13	815	5	Recovered	Recovered	Totally damaged
Onagawa	408	1139	2078	16	Partial	No damage	Partial
Minami Sanriku	441	632	7279	45	Partial	No damage	Totally damaged

<sup>6</sup> Source: Miyagi Prefectural government as of April 13<sup>th</sup>

## Situation of Affected Area in Fukushima Prefecture<sup>7</sup>



<Table 7: Situation by cities, Fukushima Prefecture>

	Death	Missing	evacuees	shelters	Recovery status
					Electricity
Fukushima	1	0	1652	17	
Nihonmatsu	0	0	895	19	
Date	0	0	431	5	
Motomiya	0	0	0	0	
Kawamata	0	0	184	1	
Ohtama	0	0	390	8	
Kooriyama	0	0	2850	31	
Sugakawa	8	2	267	8	
Shirakawa	12	0	79	1	
Saigo	3	0	378	3	
Aizu Wakamatsu	1	0	346	4	
Aizu Misato	0	0	609	8	
Soma	408	n.a.	1769	9	Not recovered
Minami Soma	424	1,050	289	4	Not recovered
Hirono	2	1	(5,000)		Not recovered
Taruha	3	10	(7,800)		Not recovered
Tomioka	3	8	(15,480)		Not recovered
Ohkuma	16	8	(11,363)		Not recovered
Futaba	16	16	(6,884)		Not recovered
Namie	3	183	(17,793)		Not recovered
Katsurao	2	1	(1,497)		Not recovered
Shinchi	88	30	613	5	Not recovered
Iitate	1	0	(2,438)		Not recovered
Iwaki	285	82	3000	46	Not recovered

<sup>7</sup> Source: Fukushima Prefectural government; Death & Missing: As of April 13<sup>th</sup>, Evacuees & Shelters: April 12<sup>th</sup>

*Gas provision is restricted in Iwaki City (12,112 households)*

*Water provision is also restricted in Iwaki City and others (101,170 households)*

*Evacuees in red are stayed outside of the town, due to the radioactive leaking warnings.*

## V. Situation of Affected Children

Among the affected community, children are one of the most affected populations in terms of degree of both physical and psychological damage. This is a preliminary assessment on affected children in Tohoku area.

The National Police Agency reports list of the affected daily, According to the latest report (11 April, 10:00am), there are more than 400 children under age of 15 died: Iwate – 40, Miyagi – 345, and Fukushima – 27 (Table 8). In Rikuzentakata, Iwate Prefecture, one of the worst hit cities, there are 1,245 people died and 16 of them are under age of 15. After one month from the disaster, 1,209 people are still missing in Rikuzentakata alone. When the disaster hit the area, many children were at school away from their parents.

**<Table 8<sup>8</sup>: Number of Affected Children among whole population>**

	Iwate	Miyagi	Fukushima
Death (>15, %)	40 (1%)	345 (4%)	27 (2%)
Dearth	3,811	7,829	1,211
Missing	4,721	6,460	3,423

Major news paper recently quoted the Ministry of Health, Labor and Wealth that 82 children became orphaned in major affected Prefectures: Iwate - 44, Miyagi - 30 and Fukushima - 8. The number reported on the Ministry's website does not reflect this latest number; Iwate – 44, Miyagi – 17, and Fukushima – 7, and it assumes the number to grow considering the dynamics of the disaster (information on 04 April<sup>9</sup>). The special committee on social protection considers that most affected children will be fostered by their relatives as per previous Great Hanshin Earthquake incident where 68 children became orphaned. Among them, 60 were fostered by their relatives. Numbers of registered foster parents are under investigation at municipality level. Latest number of registered foster parents before the disaster was Iwate – 124, Miyagi – 84, and Fukushima – 131. Right after

<sup>8</sup> Compiled based on the information from the National Police Agency, 12 April 2011

<sup>9</sup> <http://www.mhlw.go.jp/stf/shingi/2r98520000018h6g-att/2r98520000018h7x.pdf>

the disaster, non-affected municipalities indicated more than 7,000 children are accepted under foster parents, family homes, orphanages, and other facilities.

Ahinaga, a Non Profitable Organization with nation-wide scholarship programmes, opened its branch office in Sendai, Miyagi Prefecture in early April. It will open psychological care center as they did so in Hanshin Earthquake. 262 affected young generation from kindergarten to university/college applied for its temporary financial scheme as of 11 April. Among them, 33 lost/missing their both parents (160 lost/missing their father, 60 lost/missing their mother)<sup>10</sup>.

New school year starts in April in Japan but affected 291 primary and secondary schools are unable to commence. 2,462 students had transferred to school in Kanto area.

In Japan, school buildings are considered safe and has certain space/facility, thus it is used as emergency evacuation center often. Children are familiar with disaster evacuation drills in general. Yet, with the magnitude of the disaster, many children were affected being at schools. There is urgent need to grasp the whole picture in order to plan multi-aspect support mechanism. It is also important to analyze why so many children are affected being at school to reformulate future disaster risk reduction strategy and plans to be reflected in the recovery process.

## VI. Contact Information

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For questions and inquiries, please contact:

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*SEEDS Asia takes an integrated and interlinked approach to disaster management and environmental conservation within the overall umbrella of human security, to ensure safer communities in the Asia Pacific region.*

*A registered non-profit organization located in Kobe, Japan, members of SEEDS Asia come from a broad range of backgrounds that are collectively pooled to promote community-based disaster management.*

*SEEDS Asia worked in Indonesia, Maldives, Myanmar, Pakistan, Vietnam and Japan.*

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<sup>10</sup> <http://d.hatena.ne.jp/ashinagaikeikai/20110405/1301990449>