

IOC/UNESCO Bulletin No. 4
As of 19 March 2011

- *As all JR train lines in Miyagi, Fukushima and Yamagata Prefectures have been stopped, the accesses to the regions are extremely difficult.*

GSI released inundation area by the tsunami;

The Geospatial Information Authority of Japan (GSI)
http://www.gsi.go.jp/ENGLISH/page_e30003.html

<http://www.gsi.go.jp/kikaku/kikaku60001.html>

GSI released the preliminary result on the inundation area for each municipal by the analysis of aerial photos taken on 12 and 13 March 2011. The surveys for the remaining areas will be carried out shortly.

<http://www.gsi.go.jp/common/000059734.pdf>

This table shows areas of whole municipal area and inundated area for each municipal. These numbers are also shown in the below table. (Whole area / inundation area in km²)
Total inundated area is 401 km² as of now.

<http://www.gsi.go.jp/common/000059729.pdf>

Green area: preliminary survey / analysis is completed
Red frame: Planned survey areas

<http://www.gsi.go.jp/common/000059731.pdf>

Some examples;

Figure – 2 From right: Ishinomaki, Matsushima, Shiogama, Tagajo

Figure -3 From Top: Sendai, Narori, Iwanuma, Watari, Yamamoto

Figure -4 From Top Shinchu, Souma, Minami-Souma

Figure -5 : Red area: inundated area, Black area: Surveyed area

Casualties by the Earthquake and Tsunami

As of 14:00z 18 Mar 2011

The National Police Agency

- Dead: 7,197
- Missing: 10,905
- Road destruction: 1,353
- Bridge destruction: 48
- Railway destruction: 4

As of 02:30Z 18 March 2011

The Japanese Fire and Disaster Management Agency (FDMA)

1. Dead: 3,870 persons
2. Missing: 8,437 persons
3. Injured: 2,680 persons
4. Fires: 312 events (310 fires were already extinguished)
5. Number of evacuees: 398,509

(Note: Numbers are based on the report from each Prefecture)

C: City, T: Town, V: Village

Local G: Information is taken from web of each municipality

Prefecture	City, Town, Village & Population	dead	missing	Note: Tsunami related disaster (Whole area / inundation area in km ²)
Hokkaido	Hakodate C 294,264	1		Local G <ul style="list-style-type: none"> • One man dead by drowning • 128 houses flooded • 5 fishing boats; sinking • Flood area; Benten, Suehiro, Toyokawa, Oote, Wakamatsu, Kaigan, Minato-Chou
Aomori	Hachinohe C 241,308	1	1	305 / 2 (FDMA) <ul style="list-style-type: none"> • Wide-area are inundated
	Misawa C 42,226	2		Local G <ul style="list-style-type: none"> • 30 houses: flood • Evacuation shelter was closed 15 March
	Hashikami T			94 / 0.5
Iwate				<ul style="list-style-type: none"> • JR Train stop: Tohoku-Akita shinkansen, Ofunato, Kitagami, Kamaishi, Yamada lines etc (Recovering; no prospect) • Other lines are partially operational

	Miyako C 59,118	194	2,800	1,260 / 9 (FDMA) <ul style="list-style-type: none"> • Severe tsunami damages • More than 10 villages are completely destroyed
	Ofunato C 40,801	206	191	323 / 6 (FDMA) <ul style="list-style-type: none"> • More than 300 houses flow out • Many houses are flooded • 3,498 houses are completely destroyed • Especially Suesaki and Hosoura regions are severely damaged. • No communication system
	Kuji C 36,651	3	2	623 / 4 Local G <ul style="list-style-type: none"> • 145 houses are destroyed • 572 boats; damaged
	Rikuzen-Takata C 23,243	194	1,778	232 / 9 (FDMA) <ul style="list-style-type: none"> • Population: 23,000 • Extremely severe damages • Widely inundation • No communication system • 3,600 houses are damaged
	Kamaishi C 39,294	416	400	441 / 7 (FDMA) <ul style="list-style-type: none"> • Coast-Guard building inundated up to 2nd floor • Fire Office building is flooded • No communication system
	Otsuchi T 15,293	196	7	201 / 4 Ogasawara; Iwate U. (14 Mar) <ul style="list-style-type: none"> • Whole town is severely damaged • No communication system
	Yamada T 18,745	105	Un-known	263 / 4 <ul style="list-style-type: none"> • No communication system
	Iwaizumi T 10,693	4	4	993 / 1 <ul style="list-style-type: none"> • No communication system • 40 houses are flooded
	Tanohata V 3,836	14	26	(FDMA) <ul style="list-style-type: none"> • 249 houses flow out • 148 houses are destroyed • No communication system

	Fudai V 3,094		5	70 / 0.5 (FDMA) <ul style="list-style-type: none"> Ootanabe and Horiuchi fishing ports are severely damaged.
	Noda V 4,639	26	20	81 / 2 <ul style="list-style-type: none"> Tsunami flow over the village government building Severe damage in the central village 400 houses in the Motomura District are severely damaged No communication system
	Hirono T 17,961			303 / 1 Local G <ul style="list-style-type: none"> No dead 3 houses; flooded 98 fishing boats: flow out or damaged JR train bridge collapsed
Miyagi	Sendai C 1,046,902	13	9	(FDMA) <ul style="list-style-type: none"> 295 bodies are recovered (Not included in this table yet) 296,323 houses: power cut as of 17 March
	Sendai-Miyagino			58 / 20
	Sendai - Wakabayashi			48 / 29
	Sendai-Taihaku			228 / 3
	Ishinomaki C 160,336	205	448	556 / 40 (FDMA) <ul style="list-style-type: none"> Wide areas are inundated. Difficult for rescue work
	Shiogama C 56,325	12	4	18 / 5 Local G
	Kesennuma C 73,239	323	Under survey	333 / 15 (FDMA) <ul style="list-style-type: none"> Many people are isolated due to inundation of wide area
	Natori C 73,576	141	Under survey	100 / 27 (FDMA) <ul style="list-style-type: none"> Many areas are inundated
	Tagajo C 62,881	82	Under survey	20 / 6

	Iwanuma C 43,921	101	Under survey	61 / 29
	Higashi- Matsushima C 42,859	532	429	102 / 36
	Watari T 34,773	118	200	73 / 35
	Yamamoto T	276	587	64 / 24
	Matsushima T 16,193	1	31	54 / 2
	Shichigahama T 20,377	41	146	13 / 6 Local G <ul style="list-style-type: none"> • Tsunami height was more than 10 m • All facilities along coast were completely destroyed • No communication system
	Rifu T 9,768	1	0	45 / 0.5 <ul style="list-style-type: none"> • Tsunami sediment in Hamada and Suga district is about 3 cm thicknesses.
	Onagawa T 9,965	43	100	(FDMA) <ul style="list-style-type: none"> • About 630 people need to be rescued • Many areas are inundated
	Minami- Sanriku T 17,382	25	239	164 / 7 (FDMA) <ul style="list-style-type: none"> • Many areas are inundated
Fukushima	Iwaki C 345,310	151	22	Local G <ul style="list-style-type: none"> • Tsunami severely damaged area; from Kunohama to Onahama district • Some areas of above are completely destroyed
	Souma C 37,919	105		198 / 29 (FDMA) <ul style="list-style-type: none"> • Severe tsunami damages
	Minami- Souma C 70,971	195	350	399 / 27
	Hirono T 5,383	2	1	
	Naraha T 7,847	3	10	
	Tomiooka T	2	8	

	15,755			
	Okuma T 11,264		8	
	Futaba T 6,917	1	14	
	Namie T 20,686		370	
	Shinchi T 8,306	44	126	46 / 11
Ibaragi	Kita-Ibaragi C	5		Local G <ul style="list-style-type: none"> Some houses; flooded
	Hitachi C	0	0	Local G <ul style="list-style-type: none"> 35 houses: completely destroyed by tsunami, and 50 houses: partially destroyed, 556 houses; inundation Tsunami damages at Kawajiri, Aise, Kawarako and Kujihamama Ports.
	Oarai T 18,188	1		Local G <ul style="list-style-type: none"> About 2,000 houses; flooded
	Kamisu C			Local G <ul style="list-style-type: none"> 5 houses flooded 2 vessels: capsized 1 vessel: stranding 12 boats: sinking 5 boats: stranding on shore
Chiba	Choshi C	0	0	Local G <ul style="list-style-type: none"> 32 houses flooded
	Asahi C	12	3	Local G <ul style="list-style-type: none"> 112 houses flooded 254 houses were completely destroyed by tsunami 537 houses were partially destroyed by tsunami 85 houses were completely destroyed by earthquake 772 houses were partially destroyed by earthquake
	Sousa C			Local G <ul style="list-style-type: none"> 18 houses flooded
	Yokoshiba-Hikari T			Local G <ul style="list-style-type: none"> 14 houses flooded Boats are damaged

				<ul style="list-style-type: none"> Port facility is damaged
	Sanbu C	1		Local G <ul style="list-style-type: none"> 243 houses flooded
	Kujyukuri T			Local G <ul style="list-style-type: none"> 161 houses flooded
	Oami-Shirasato T			Local G <ul style="list-style-type: none"> No tsynami damage
	Shirako T			
	Chousei V			
	Ichinomiya C	0	0	Local G <ul style="list-style-type: none"> 58 houses flooded; Kaigan and Omura District Farm: 3 ha inundated
	Isumi C			Local G <ul style="list-style-type: none"> 19 houses flooded
	Onjyuku T			
	Katsuura C			
	Kamogawa C			
	Minami-Bousou C			
	Tateyama C			
	Chiba C			Local G <ul style="list-style-type: none"> 2 houses flooded
Shizuoka	Shimoda C 25,549			Local G <ul style="list-style-type: none"> 13 houses; flooded

PHOTO Links

Photo of Shiogama City; Miyagi Prefecture

<http://www.city.shiogama.miyagi.jp/html/emergency/bousai/bousaikunren/pdf/hisaijoukyou.pdf>

Photo of Sanbu City, Chiba Prefecture

<http://www.city.sammu.lg.jp/extramenu/bousai-kinkyu/jyoukyou.html>

http://www.ajiko.co.jp/bousai/touhoku2011/touhoku_eng.htm#110316_01