

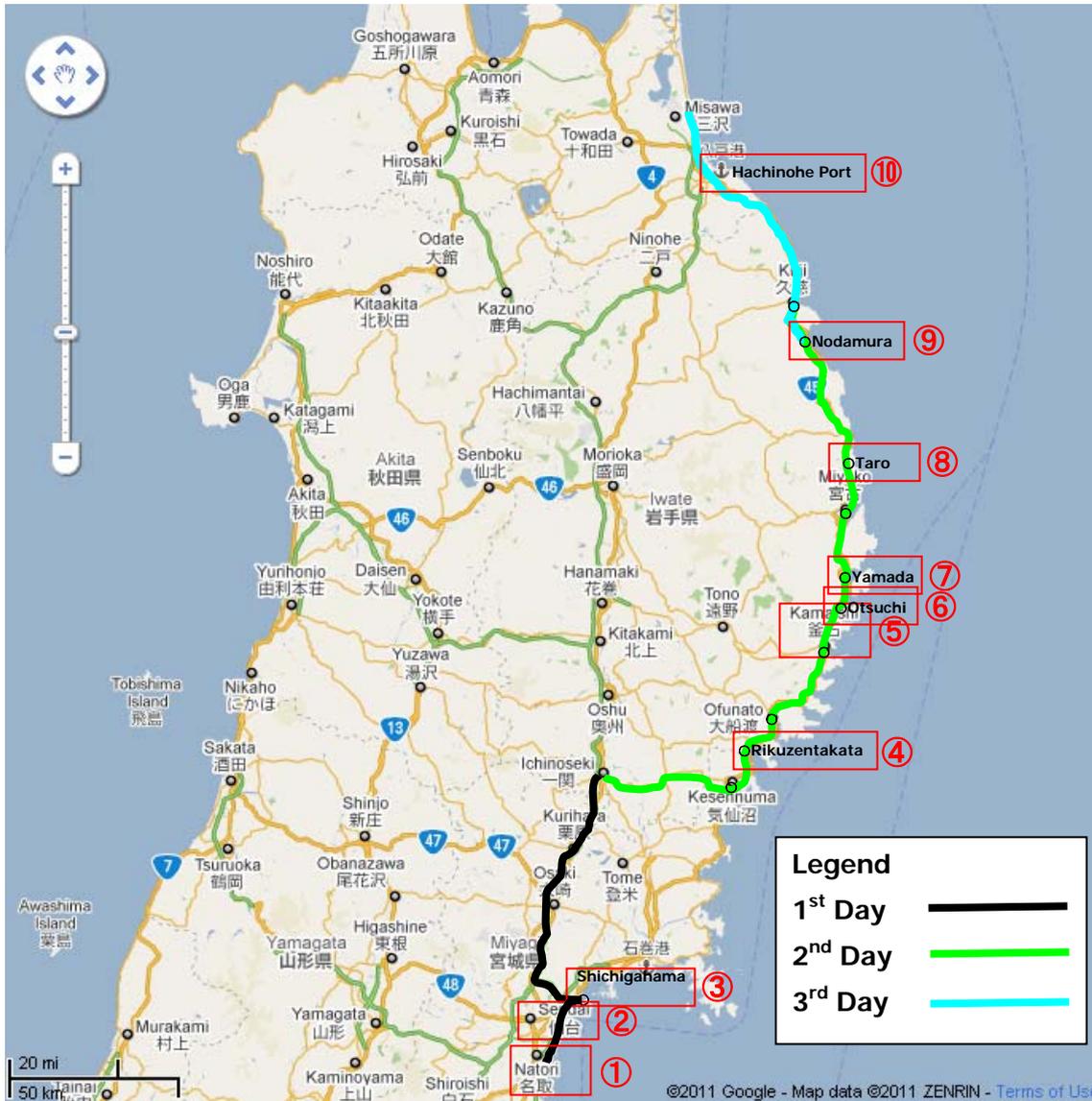
Field Survey in The Disaster Affected Area of The Great East Japan Earthquake 2011

- Surveyed between 21 – 23 April, 2011 -



Japan International Cooperation Agency

Route Map of Field Survey



Field Survey Schedule

Day		Prefecture	Field Survey Area
1 st Day	21 April	Miyagi	① Natori (Sendai Airport) ⇒ ② Sendai (Wakabayashi-Ward) ⇒ ③ Shichigahama
2 nd Day	22 April	Miyagi, Iwate	Kesennuma ⇒ ④ Rikuzentakata ⇒ Ofunato ⇒ ⑤ Kamaishi ⇒ ⑥ Otsuchi ⇒ ⑦ Yamada ⇒ ⑧ Miyako (Taro)
3 rd Day	23 April	Iwate, Aomori	⑨ Nodamura ⇒ Kuji ⇒ Taneichi ⇒ ⑩ Hachinohe ⇒ Misawa

1. Miyagi Prefecture

① Natori

Inundation area		Population		73,140
		Casualty	Death	887
			Missing	230
			Death+Missing	1,117
			Casualty Ratio (%)	1.5
	Sendai Airport and surrounding area, the Airport started their operation in 13 April, 2011, with minimum facilities.			
	Residential area along the Airport. Located near to coastal line and residential buildings were totally washed away.			
	Collapsed Sea Wall. Tsunami Control Forest was mostly destroyed.			
	Debris of Sea Wall, located behind the original position.			

Source: Inundation Area, Geospatial Information Agency of Japan, 2011
 Population, Population Census 2010, pre-released on 25 Feb. 2011
 Death and Missing, Miyagi Prefecture, as of 23 April, 2011

②Sendai (Wakabayashi-ward, Miyagino-ward)

Inundation area		Population		322,676
		Casualty	Death	662
			Missing	-
			Death+Missing	662
			Casualty Ratio (%)	0.2
		Residential area and surrounding agricultural field		
<p>Pumping Vehicle located near the coastal line owned by Ministry of Land, Infrastructure, Transport and Tourism (MLIT)</p>		<p>Sea water remained in the agricultural field by Tsunami inundation</p>		

Source: Inundation Area, Geospatial Information Agency of Japan, 2011

Population, Population Census 2010, pre-released on 25 Feb. 2011

Death and Missing, Miyagi Prefecture, as of 23 April, 2011

Note: Population of Sendai is 1,045,903, however, only Wakabayashi-ward, and Miyagino-ward where Tsunami damages observed were taken into account, therefore, 322,676 is the sum of population of Wakabayashi-ward and Miyagino-ward

③ Shichigahama

Inundation area		Population		20,419
		Casualty	Death	62
			Missing	10
			Death+Missing	72
			Casualty Ratio (%)	0.4
	Interview to Disaster Management Officials of Shichigahama-town for their preparedness and response			
	Retrofitted Municipal Building and no damages were observed, and the building is located at the highest point of the town			
	Residential buildings were washed away in the flat residential area			
	Temporary shelters under construction (to be completed in a few days), however still lack of number compared with needs			

Source: Inundation Area, Geospatial Information Agency of Japan, 2011
 Population, Population Census 2010, pre-released on 25 Feb. 2011
 Death and Missing, Miyagi Prefecture, as of 23 April, 2011

2. Iwate Prefecture

④ Rikuzentakata

Inundation area		Population		23,302
		Casualty	Death	1,356
			Missing	817
			Death+Missing	2,173
			Casualty Ratio (%)	9.3
				
One of the settlements in Rikuzentakata, residential buildings are totally washed away. There are shrine along the hilly area and people evacuated to this shrine				
				
Municipal building was also inundated totally and can not be utilized for emergency response activities		Designated evacuation facility was also inundated totally, and many people killed		

Source: Inundation Area, Geospatial Information Agency of Japan, 2011
 Population, Population Census 2010, pre-released on 25 Feb. 2011
 Death and Missing, Iwate Prefecture, as of 23 April, 2011

⑥Otsuchi

Inundation area		Population		15,277
		Casualty	Death	694
			Missing	980
			Death+Missing	1,674
			Casualty Ratio (%)	11.0
	Sign Board of "Estimation of Tsunami Inundation Area", however, it is over estimated			
	Railway and railway bridge was collapsed			
	City center of Otsuchi. Most of buildings except RC buildings were washed away			
	Tsunami inundated along rivers far from coastal line			

Source: Inundation Area, Geospatial Information Agency of Japan, 2011
 Population, Population Census 2010, pre-released on 25 Feb. 2011
 Death and Missing, Iwate Prefecture, as of 23 April, 2011

⑦ Yamada

Inundation area		Population		18,625
		Casualty	Death	547
			Missing	380
			Death+Missing	927
			Casualty Ratio (%)	5.0
Residential Buildings were washed away in the flat area		Gymnasium are utilized as "Evacuation Center"		
Movable Mobile Phone Station and new antenna installation		"Public Bath" operated by Self Defense Force		

Source: Inundation Area, Geospatial Information Agency of Japan, 2011
 Population, Population Census 2010, pre-released on 25 Feb. 2011
 Death and Missing, Iwate Prefecture, as of 23 April, 2011

⑧Miyako (Taro)

Inundation area		Population		59,442
		Casualty	Death	405
			Missing	530
			Death+Missing	935
			Casualty Ratio (%)	1.6
Sea Wall with height of 10 m was collapsed				
Sign Board of "Past Tsunami Inundation in 1933", almost same as this disaster		Buildings inside sea walls were totally collapsed		

Source: Inundation Area, Geospatial Information Agency of Japan, 2011
 Population, Population Census 2010, pre-released on 25 Feb. 2011
 Death and Missing, Iwate Prefecture, as of 23 April, 2011

⑨Nodamura

Inundation area		Population		4,632
		Casualty	Death	38
			Missing	-
			Death+Missing	38
			Casualty Ratio (%)	0.8
Collapsed Sea Wall		Fallen down Tsunami Control Forest		
Flat residential area and agricultural field were totally washed away		Left side road with higher elevation was the line to be collapsed or not		

Source: Inundation Area, Geospatial Information Agency of Japan, 2011
 Population, Population Census 2010, pre-released on 25 Feb. 2011
 Death and Missing, Iwate Prefecture, as of 23 April, 2011

3. Aomori Prefecture

⑩ Hachinohe

Inundation area		Population		237,473
		Casualty	Death	1
			Missing	-
			Death+Missing	1
			Casualty Ratio (%)	0.0004
<p>Many large ships were pushed away inland by Tsunami, structural damages are limited compared to other location, however, fishery activities can not be operated in this area</p>				

Source: Inundation Area, Geospatial Information Agency of Japan, 2011
 Population, Population Census 2010, pre-released on 25 Feb. 2011
 Death and Missing, Aomori Prefecture, as of 23 April, 2011