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The Great East Japan Earthquake: A Chronicle in English from March 11 to March 25

Takashi MACHIMURA

In this volume, two chronicles of the 2011 disaster in Japan are presented. While the Japanese version covers occurrences from March 11 to May 11, 2011, two months after the Earthquake, this English version is abridged, and covers up to March 25.

As most events happened in a Japanese-speaking world, the original chronicle was edited in Japanese. It includes more than 11,000 items on various events for two months after the quake. For the convenience of international readers, the following abridged version was edited in English. A part of translation

is still provisional, and the covered period is two weeks after the quake. Events are also divided into several groups of items, such as government; politics and economy; nuclear accidents; damages of and recovery from earthquakes and tsunami; lifeline and infrastructure; activities in civil society; impact of nuclear accidents; urban life, culture and media.

This is not a finished product but just a starting point. We hope that these manifold facts can contribute to better understanding of what actually happened in Japan since March 11.

Abbreviation for an English version

A: Asahi Shimbun, a newspaper in Japan 朝日新聞

AEC: (Japan) Atomic Energy Commission (an advisory body in the Cabinet Office) 原子力委員会

ANEP: Act on Special Measures Concerning Nuclear Emergency Preparedness 原子力災害対策特別措置法

Cabinet Office: Cabinet Office, Government of Japan 内閣府

CNIC: the Citizen's Nuclear Information Center (a Tokyo-based NGO established by scientists and civic activists in 1975) 原子力資料情報室

DMAT: Disaster Medical Assistance Team 災害派遣医療チーム

DPJ: the Democratic Party of Japan 民主党

FDMA: Fire and Disaster Management Agency (of MIC) (総務省) 消防庁

Fukushima Daiichi NPP: Fukushima Daiichi Nuclear Power Plant 福島第一原子力発電所

GoJ: Government of Japan 日本政府

GSI: Geographical Survey Institute 国土地理院

IAEA: International Atomic Energy Agency 国際原子力機関

INES: International Nuclear Event Scale 国際原子力事象評価尺度

Investigation Committee on the Accident at the Fukushima Nuclear Power Stations 東京電力福島原子力発電所における事故調査・検証委員会

JAEA: Japan Atomic Energy Agency (a quasi-governmental agency) 独立行政法人日本原子力研究開発機構

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- JANIC: Japan NGO Center for International Cooperation 国際協力 NGO センター
- JMA: Japan Meteorological Agency 気象庁
- JNCSW: Japan National Council of Social Welfare 全国社会福祉協議会
- JR-EAST: East Japan Railway Company 東日本旅客鉄道株式会社 (JR 東日本)
- LDP: Liberal Democratic Party 自民党
- MAFF: Ministry of Agriculture, Forestry and Fisheries 農林水産省
- METI: Ministry of Economy, Trade and Industry (Ministry of Industry) 経済産業省
- MEXT: Ministry of Education, Culture, Sports, Science and Technology (Ministry of Education) 文部科学省
- MHLW: Ministry of Health, Labour and Welfare 厚生労働省
- MIC: Ministry of Internal Affairs and Communications 総務省
- MLIT: Ministry of Land, Infrastructure, Transport and Tourism 国土交通省
- MOD : Ministry of Defense 防衛省
- MOE: Ministry of the Environment 環境省
- MOFA: Ministry of Foreign Affairs 外務省
- NERH: Nuclear Emergency Response Headquarters (a temporary headquarter established in Cabinet Office) 原子力災害対策本部
- NHK: Nippon Hōsō Kyōkai, Japan Broadcasting Corporation 日本放送協会
- NIRS : National Institute of Radiological Sciences 放射線医学総合研究所
- NISA: Nuclear and Industrial Safety Agency, (a branch of METI) 原子力安全・保安院
- NK: Nihon Keizai Shimbun (The Nikkei), a newspaper in Japan 日本経済新聞
- NPA: National Police Agency 警察庁
- NSC: The Nuclear Safety Commission (an independent agency established within the Cabinet of Japan) 原子力安全委員会
- NTT EAST: Nippon Telegraph and Telephone East Corporation 東日本電信電話株式会社 (NTT 東日本)
- PM: Prime Minister 内閣総理大臣 (首相)
- Reconstruction Design Council (RDC): Reconstruction Design Council in response to the Great East Japan Earthquake 東日本大震災復興構想会議
- Reconstruction Headquarters (RH): Reconstruction Headquarters in response to the Great East Japan Earthquake (a coordinating organization in Cabinet Secretariat) 東日本大震災復興対策本部
- SDF: Self-Defense Forces 自衛隊
- SPEEDI: System for Prediction of Environmental Emergency Dose Information (National information system operated by the Nuclear Safety Technology Center, a quasi-governmental organization under the initiative of the MEXT) 緊急時迅速放射能影響予測ネットワークシステム
- TEPCO: The Tokyo Electric Power Co. 東京電力株式会社
- TMG: Tokyo Metropolitan Government 東京都 (都庁)
- (UN)OCHA: United Nations Office for the Coordination of Humanitarian Affairs 国連人道問題調整部
- Y: Yomiuri Shimbun, a newspaper in Japan 読売新聞

Table 1 A chronicle of The Great East Japan Earthquake: From March 11 to March 25

	Disaster: Overview	National Government	Tsunami and Earthquake: Damages & Recovery	Nuclear Accidents	Impacts of Nuclear Disaster	Economy and Politics	Infrastructure	Urban Life, Media & Culture	Civil Society
3/11 (Fri)	<p>14:46 (05:46 GMT) Earthquake of magnitude (M) 9.0 occurred off the east coast of Japan</p> <ul style="list-style-type: none"> • Many aftershocks occurred, with more than 500 over M5.0 until the end of May. Only those over M6.0 will be shown in this chronicle 14:51 Aftershock (M6.8), 14:58 (M6.4), 15:06 (M6.4) 15:08 Aftershock (M7.4) 15:15 Aftershock (M7.7) 15:26 Aftershock (M7.2) • Tsunami hit Ofunato(15:18, 8.0+m), Miyako(15:26, 8.0+m), Ishinomaki(15:26, 8.1+m), Soma(15:51, 9.3+m), Yokohama(17:38, 155cm), Tokyo(19:16, 1.5m) (JMA) • Aftershock 16:15 (M6.8), 16:29 (M6.5), 17:12 (M6.4), 17:19 (M6.7), 17:47 (M6.0), 20:36 (M6.7), 22:15 (M6.2) 	<p>14:50 Ministry of Defense established disaster headquarters (own site)</p> <p>15:14 Prime Minister established Headquarters for Emergency Disaster Control (A)</p> <p>18:00 Minister of Defense dispatched the Self-Defense Forces for earthquake disaster relief (A)</p> <p>19:03 Prime Minister declared a Nuclear Emergency Situation</p>	<p>14:52 Iwate Prefecture requested dispatch of SDF. (A)</p> <p>15:02 Miyagi Prefecture requested dispatch of SDF. (A)</p> <p>16:47 Fukushima Prefecture requested dispatch of SDF. (A)</p> <ul style="list-style-type: none"> • Tsunami flooded areas totaled 561km2 in total , Miyagi Prefecture 327km2, Fukushima Pref. 112km2, Iwate Pref. 58km2. (Geographical Survey Institute) • City hall buildings were collapsed by tsunami in Rikuzentakada, Minamisanriku, Onagawa, Otsuchi etc. • Night In Kesenuma a large fire occurred because of spilled oil from damaged tanks. 	<ul style="list-style-type: none"> • Fukushima Daiichi Nuclear Power Plant has 6 reactors. when the quake occurred, Unit 4 had been de-fuelled and Unit 5 and 6 were in cold shutdown for planned maintenance 14:46 NPP of Fukushima Daiichi & Daini, Onagawa were shutdown automatically 14:47 Fukushima Daiichi lost external power source 15:27 Tsunami (1st wave) hit Fukushima Daiichi NPP 15:37 Daiichi NPP lost all electric power sources 15:42 TEPCO notified GoJ of radiation doze above limit (based on ANEP, Article 10) 16:36 Nuclear Emergency Situation was notified (based on ANEP, Article15) 17:00 First projection of SPEEDI was reported, but it was not released until March 23 (A) • Around 17:00 Fuel rod of Unit 1 began to be exposed (reported later, NISA) • Around 18:00 Meltdown of Unit 1 occurred (reported later, NISA) 	<p>19:03 Prime Minister Naoto Kan declared a Nuclear Emergency Situation</p> <p>19:30 Minister of Defense dispatched the Self-Defense Forces for nuclear disaster operation (A)</p> <p>21:23 Government of Japan(GoJ) instructed residents living within a 3 km zone of Fukushima Daiichi NPP to evacuate, and those in 3-10 km zone to stay indoors.</p>	<ul style="list-style-type: none"> • Major factories of Nissan, Honda, Toyota, Sumitomo Metal, Sony, Nippon Paper, Kirin Brewery, etc. located in East Japan stopped their operation. 	<ul style="list-style-type: none"> • After earthquake most railways and subways were stopped in East Japan. • Fujinuma Dam in Fukushima collapsed, and 8 people went missing. (Nikkei Construction) 16:00 Haneda Airport in Tokyo reopened, but Narita Airport closed until next morning. • Major streets in Tokyo were all jammed with cars. 18:00 4.4 million houses have no electricity in Tohoku. (A) • Direct message by Twitter, mailing by Smartphone were available almost just after quake. (A) • Calling by Skype was available several hours after the quake. (A) • NTT-East Japan: 18 telecom buildings collapsed, 23 buildings were submerged, 65,000 poles and 6,300km of aerial cable were lost or damaged. (NTT-East) 	<p>14:57 NTT DOCOMO started Disaster Message Board Service by mobile phone.(NTT DOCOMO)</p> <p>17:39 Chief Cabinet Secretary Edano requested commuters to stay at offices due to no train services. (A)</p> <p>18:20 55,000 guests stayed at Tokyo Disney Land without public transportation. (NK)</p> <p>20:10 Chief Cabinet Secretary requested public buildings should be opened for commuters without transportation. (A)</p> <p>21:33 NHK, Japan's public broadcasting corporation, officially started live streaming its TV program on Internet. (NHK)</p> <ul style="list-style-type: none"> • National Police Agency decided on a policy for regulation of false rumor. (A) • In Greater Tokyo area, 2.6 million commuters stayed at office or temporary facilities at night, 6 million made a long-distance walk home. (estimate of Mitsubishi Research Institute, MRI) 	
3/12 (Sat)	<p>3:59 Earthquake in Nagano (M6.6)</p> <p>4:03 Aftershock (M6.2)</p> <p>22:15 Aftershock (M6.0)</p>	<p>7:11 Prime Minister Naoto Kan visited Fukushima Daiichi NPP by helicopter.</p> <ul style="list-style-type: none"> • Prime Minister Kan ordered Defense Minister to expand members of emergency rescue unit to 100,000. (A) • Vice minister of MHLW said that volunteers should not enter into damaged areas at present. (NK) 	<p>7:00 MHLW announced that at least 181 social welfare facilities were affected. (A)</p> <ul style="list-style-type: none"> • SDF, police, firemen, local fire brigade (Shobodan) searched for survivors and rescued them. (A, NK) • 1,126 emergency fire response teams were sent to damaged areas from all over Japan. (NK) • US Navy began to transport goods to damaged areas by air from Atsugi Base. (A) 	<p>1:00 Ambient radiation dose rate began to rise. (reported later, NISA)</p> <p>15:00 Nuclear and Industrial Safety Agency (NISA) evaluated this incident as level 4 of 7 on the INES. (A)</p> <p>15:36 Reactor building of Unit 1 exploded. (A)</p> <p>18:00 Prime Minister ordered TEPCO to pour seawater into plants. (A)</p>	<p>5:44 GoJ instructed residents living within 10 km of Fukushima Daiichi NPP to evacuate. (NK)</p> <p>17:39 GoJ instructed residents living within 10 km of Fukushima Daini NPP to evacuate. (A)</p> <p>18:25 GoJ instructed residents within 20 km of Fukushima Daiichi NPP to evacuate. (A)</p> <ul style="list-style-type: none"> • US Nuclear Regulatory Commission (NRC) sent two experts to Japan. (A) 	<ul style="list-style-type: none"> • Major retail and food companies started to send food and drinks to affected areas. 	<ul style="list-style-type: none"> • 6,680 mobile phone base stations of NTT DOCOMO and 3,800 base stations of KDDI were off the air. (A) • Power supply was cut off at 5 million households in Tohoku and Greater Tokyo regions. • Softbank started free access service to Wi-Fi spot in whole Japan until April 6. (Softbank) 	<p>4:00 94,000 commuters unable to get home stayed at public facilities in Tokyo Prefecture (Sankei)</p> <ul style="list-style-type: none"> • Supporting website for affected libraries (savelibary) and museums (savemuseum) were opened (DNP artscape site) 	<ul style="list-style-type: none"> • Disaster volunteer centers were established in Ibaraki Pref., Aomori Pref., and Urayasushi City. (JNCSSW) • NGOs (Civic Force, Japan Platform, Peace Winds Japan, etc) sent an advance party to Tohoku. • Citizen's Nuclear Information Center (CNIC), a Tokyo-based independent watchdog organization, started live streaming of press conference on Fukushima NPP by Ustream. (CNIC) • Japanese Society for Traumatic Stress Studies opened a supporting website for disaster relief. (JSTSS)

	Disaster: Overview	National Government	Tsunami and Earthquake: Damages & Recovery	Nuclear Accidents	Impacts of Nuclear Disaster	Economy and Politics	Infrastructure	Urban Life, Media & Culture	Civil Society
3/13 (Sun)	<p>7:13 Aftershock (M6.0)</p> <p>7:30 JMA had canceled all Tsunami Warning in East Japan coastal areas. (A)</p> <p>8:25 Aftershock (M6.2)</p> <p>10:00 National Police Agency (NPA) reported 763 died and 639 were missing. (A)</p> <p>10:26 Aftershock (M6.4)</p> <p>20:37 Aftershock (M6.0)</p>	<p>19:59 Prime Minister Kan agreed with implementation of rolling blackout in TEPCO area from March 14. (A)</p> <p>• UNOCHA's disaster coordinating experts arrived in Japan. (MOFA)</p> <p>• MOFA announced international rescue teams arrived from South Korea, Singapore, Germany, Switzerland, China, U.S., U.K., New Zealand, and Turk, by this day, and would arrive from France and Mexico on 14th. (A)</p>	<p>• US aircraft carrier Ronald Reagan arrived off east coast of Japan. (A)</p> <p>• SDF, police, firemen, local fire brigade (Shobodan) searched for survivors and rescued them.</p>	<p>8:00 Fuel rod of Unit 3 began to be exposed. (NISA)</p>	<p>12:00 120,369 residents near NPP had evacuated; among those, 60,000 from evacuation-instructed area and 60,000 voluntarily from other areas. (Fukushima Minpo)</p> <p>• Fukushima Pref. Government confirmed that 22 residents were exposed to radiation. (A)</p> <p>• French Embassy urged French nationals to leave Tokyo region. (A)</p>	<p>• Nissan stopped operation in all factories in Japan.</p>	<p>8:00 about 2.1million households have no electricity in Tohoku and Kanto region. (A)</p> <p>13:00 NTT-East: 1.5million fixed-line phones are out of service due to a shortage of power in telecom buildings. (NTT-East)</p> <p>• Japan Post announced 596 post offices are out of service at present. (A)</p>	<p>• Nagoya International Women's Marathon was cancelled.</p> <p>• A lot of people in Tokyo area rushed into stores to buy dairy goods before rotating blackout. (Nikkan Sports)</p> <p>• Supporting website for affected archives (savearchives) was opened. (DNP artscape site)</p>	<p>• Joint Committee for Coordinating and Supporting Volunteers (established by Central Community Chest of Japan etc.) sent an advance party to affected area. (own site)</p>
3/14 (Mon)	<p>10:02 Aftershock (M6.2)</p> <p>15:13 Aftershock (M6.3)</p> <p>22:00 FDMA reported 1,154 died and 1,956 were missing (FDMA)</p>	<p>21:03 Chief Cabinet Secretary said meltdown might occur in Unit 1, 2, 3 (NK)</p> <p>• Ministry of Defense decided to make Disaster Call-Up of 6,500 Reserve/Ready Reserve Personnel (NK)</p>	<p>• Defense Minister established Joint Task Force-TOHOKU. (until July 1) (NK)</p> <p>• MAFF announced it sent foods for 690,000 and drinks for 710,000 to affected areas. (A)</p> <p>• MHLW announced it will send supporting teams for mental health care to affected areas on 15th. (A)</p>	<p>11:01 Reactor building of Unit 3 exploded. (A)</p> <p>13:25 TEPCO reported Unit 2 lost cooling ability. (Tokyo Shinbun)</p> <p>18:25 Fuel rod of Unit 2 began to be exposed. (NK)</p> <p>22:00 Reactor 3 came to a partial meltdown. (A)</p> <p>23:00 Reactor 2 came to a partial meltdown. (A)</p>	<p>20:56 SDF moved major staffs from offsite center of NPP to Kooriyama, due to emergency at Unit 2. (SDF)</p> <p>• NIRS released a public statement, "Don't take commercially available products containing iodine. Beware of un founded information on the Internet." (NIRS)</p> <p>• At night, Katsurao Village, located outside of the 20km area, instructed residents to evacuate "voluntarily." (Fukushima Minpo)</p> <p>• US aircraft carrier Ronald Reagan and other vessels moved away from the coast of Tohoku in order to keep away from airborne radiation. (NK)</p>	<p>• Toyota, Nissan, Mitsubishi, Suzuki, and Honda (except one factory) stopped operation in all factories in Japan. (A)</p> <p>• NEC stopped operation in major offices and factories in Greater Tokyo Region. (NK)</p> <p>• Nikkei Stock Average dropped by 6.1 % at Tokyo Stock Exchange. (NK)</p> <p>• GoJ reported the quantity of water ordered by super markets increased by ten times as before on March 13 and 14. (A)</p>	<p>• Rolling blackout in TEPCO services area (Day 1, 0.1million houses were affected) began in the evening.</p> <p>• Tokyo Metro cut its train runs into about a half of the normal day to prepare for rotating blackout. (NK)</p> <p>• GoJ sent email to 24million mobile phone users in East Japan via NTT DOCOMO, asking them to save power.</p> <p>• NPA called on drivers in Greater Tokyo area to refrain from driving a car during the period of rotating blackout because there were no signal lights.</p>	<p>• MEXT reported total 3,401 public elementary, junior high, high and other public schools had no class. (A)</p> <p>• TMG began to call on people to voluntarily refrain from having parties and events at public parks. (A)</p> <p>• NHK announced it would suspend midnight broadcasting of Education channel and BS2 from March 15 to 19 in order to save power.</p> <p>• Major private broadcasting companies resumed TV commercials from the morning of 13th, but stopped again after the explosion of Unit 3 at Fukushima Daiichi. (Nikkan Sports)</p>	<p>• Earth Day-Tokyo released "Urgent statement about a great earthquake from ground day Tokyo," asking for saving power and stopping nuclear power plant with risk. (own site)</p> <p>• Japan Civil Network for Disaster Relief in East Japan, Japan Platform, Good Neighbors Japan and other NGOs started their activities in affected area. (own site)</p> <p>• Japan Red Cross Society, a major recipient in Japan, began to accept donation. (NK)</p>

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3/15 (Tue)	22:32 Earthquake of M6.4 occurred in Shizuoka 23:00 NPA reported that 4,851 died, 14,428 were missing, and 523,288 evacuated (A)	5:35 Prime Minister Kan visited TEPCO and decided GoJ and TEPCO established Joint Headquarter for Nuclear Accidents at the TEPCO building (A) 22:20 SDF opened decontamination station at Fukushima Medical University (SDF) • MOFA gave a lecture on nuclear accident to 120 diplomats from 60 countries • MHLW and METI announced that exposure limit of NPP workers will be temporarily loosened from 100 to 250mSv/year (A) • Emperor and Empress started "voluntary blackout"(Koshitsu)	• US Gov. allocated \$35 million to Operation "Tomodachi" ("friendship" in Japanese) (UNOCHA, Mar 15).	0:02 Reactor 2 vented steam with high level radioactive materials. (NK) 6:00 The sound of explosion was heard from the building of Unit 4. (NK) 7:00 Ambient radiation dose rate recorded one of its peaks. (JAEA estimate, 201108) 8:30 TEPCO said all workers except fifty staffs had already evacuated from Fukushima Daiichi NPP. (A) 9:38 Fire occurred in Unit 4. (A)	4:00 In Iwaki, Fukushima Pref., 23.72 μSv/h was detected.(Fukushima Minpo) 11:00 Prime minister ordered residents living in 20-30 km zone of Fukushima Daiichi to stay indoors. (A) 13:20 Taiwan Government designated Tokyo as a warning area for visitors. (The Liberty Times, Taiwan) 16:20 Iitate Village recorded 44.2μSv/h. (A) 16:40 Fukushima City recorded 24.2 μSv/h. (A) • Rainfall was reported from the evening, which caused high radioactive contamination in the North-east of NPP. • At night, radiation of 195-330 μSv/h was detected in Namie, a neighboring town of NPP. (A)	• Toyota stopped operations in all factories in Japan. (NK) 9:00 Large scale system failure happened at Mizuho Bank, caused by a massive concentration of relief donation. (A) 15:00 A drop of 10.5% was recorded at Tokyo Stock Exchange (the 3rd largest decline in postwar history). (NK) • Mizuho Bank closed its Iwaki Branch in Fukushima Pref. in the morning. (NK)	• Rolling blackout (Day 2, 5.0 million houses) started at 7:00. 1:00 MLIT announced that TEPCO and railway companies had agreed on priority in supply to railways. (NK)	• TMG detected low level radiation in Tokyo in the morning (NK) • Austrian Embassy moved its functions from Tokyo to Osaka. • Fukushima District Public Prosecutor's Office's Iwaki Branch released more than 10 suspects in custody. (A) • Batteries and flashlights were sold out in many electric appliance stores in Tokyo. (Nikkan Sports) • National Theater in Tokyo decided to close from March 15 to 27. (A) • Major recording companies postpone the release of CDs and DVDs. (Nikkan Sports)	18:30 Tanpoposha, a Tokyo-based independent watchdog organization on nuclear power plant, had an emergency meeting. (own website) 19:00 CNIC released press conference at The Foreign Correspondents' Club of Japan by Ustream. (CNIC) • Disaster volunteer center was established in Miyagi Pref., Fukushima Pref. and Sendai City. (JNCSW) • JEN, a Tokyo-based NGO, started its activities in Sendai. (JEN)
3/16 (Wed)	0:24 Aftershock (M6.0) 12:52 Aftershock (M6.0)	8:30 Chief Cabinet Secretary said, "As containment vessel of Unit 3 crippled, radioactive steam might be vented." (A) 16:30 Imperial Household Agency released videotaped message of Emperor Akihito. (NK) • SDF set forth the Scheme for the Transportation of Relief Supplies from Local Governments and the Private Sector. (NK) • GoJ Cabinet Secretariat established Volunteer Coordination Office. (A)	• SDF and other rescue teams continued to search for survivors • US Armed Force and SDF cooperated to work for disaster assistance. US Air Force removed rubbles in Sendai Airport. US Marines in Okinawa joined activities (NK)	5:00 Ambient radiation dose rate recorded one of its peaks. (JAEA estimate, 201108) 7:00 TEPCO reported temperature of spent fuel pools rose in Unit 5 and 6. (A) 10:40 10 mSv/h was detected at the gate of Fukushima Daiichi NPP. (A)	8:00 Fukushima Pref. announced that low level radioactive materials were detected in the drinking water of Fukushima City. (A) • US Embassy recommended nationals living within 80 miles from NPP should leave. (A) • UK, Germany, and other governments recommended nationals in Tokyo and nearby areas should consider evacuation. (A)	• Toyota announced that all factories would be closed from March 17 to 22. (NK)	• Rolling blackout (Day 3, 10.9million houses) • Yamanote Line, Keihin-tohoku Line of JR-East, Ginza Line, Marunouchi Line, and Nanboku Line of Tokyo Metro returned to normal operation. (Aera Mook)	11:15 Edano asked people to refrain from hoarding gasoline. (A) • Japan FM Network Association started live streaming of 6 FM stations in Tohoku region and TOKYO FM on the Internet. (NK)	• Coalition for Legislation to Support Citizen's Organizations (C's) held a public meeting of GoJ and disaster assistance NPOs (own site)

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3/17 (Thu)		<ul style="list-style-type: none"> US Department of Defense announced it will send 9 nuclear experts to Japan. (A) MHLW established a provisional standard on food safety, responding to nuclear accidents. (A) 		<p>9:48 SDF helicopter sprayed cooling water to spent fuel pool of Unit 3 in Fukushima Daiichi NPP. (NK)</p> <p>17:00 Metropolitan Police Department's high-pressure water cannons tried to spray water onto Unit 3, but in fail. (A)</p>	<p>15:38 Korean Embassy recommended nationals living within 80 miles of the NPP should leave. (A)</p> <ul style="list-style-type: none"> Nuclear experts in supporting companies had been dispatched to Fukushima NPP; 60 from Toshiba; 47 from Hitachi; 30 from IHI. (NK) MOFA said 8 countries, including Panama, Croatia and Liberia, closed their embassies in Tokyo temporarily. (A) Foreign residents who wished to leave Japan made a long line in immigration offices in Tokyo to get a reentry permit. (Nikkan Sports) 	<p>13:45 Minister of Industry, Kaieda commented that large-scale unexpected blackouts might happen in the Metropolitan Area, because demand might surpass supply. (A)</p> <ul style="list-style-type: none"> H&M announced a part of its headquarters function will be moved to Osaka from Tokyo. (NK) Idemitsu resumed its oil factory in Shiogama, Miyagi Pref. (NK) 	<ul style="list-style-type: none"> Rolling blackout recorded its peak (Day4, total 18.1million houses) 16:00 MLIT directed railway companies in Greater Tokyo area to reduce their operation in evening commuting time of 17th (A) MLIT reopened Sendai Airport (NK) NPA reported 4 traffic injury accidents occurred at crossings during rotating blackouts on March 16 and 17 (A) 	<ul style="list-style-type: none"> Metropolitan Police Department requested people to pay attention to crime during rotating blackout time on Internet. (own site) NPA requested an organization of major Internet providers to give alert to those who send false rumors via the Internet. (NPA) Japanese Society for Rights of Authors, Composers and Publishers (JASRAC) announced it exempts users in affected areas from paying royalties for copyrights. Kanda Matsuri Festival in Tokyo, held in coming May, was canceled by its organizing meeting. (A) 	<ul style="list-style-type: none"> A network organization for supporting sexual minority submitted a request for fair treatment of sexual minority in disaster-affected area to GoJ Emergency Disaster Headquarters. (own site) Charity Platform, a Tokyo-based NPO, started a website for accepting donated goods from companies, named "Dekirukoto." (own site)
3/18 (Fri)	<p>22:00 FDMA reported 3,870 died and 8,437 were still missing. Reported refugees amounted to 398,509 (FDMA)</p>	<p>16:46 Korean President, Lee Myung-bak, visited Japanese Embassy in Seoul to make a call to express his condolence. It was the first visit of Korean President. (The Chosunilbo, South Korea)</p> <ul style="list-style-type: none"> Chinese President, Hu Jintao visited Japanese Embassy in Beijing to make a call to express his condolence. It was very exceptional (A) A liaison meeting on nuclear disaster was established at MOD. Members from USNRC and US Armed Force in Japan also joined it. (NK) 3.11 Relief Information Aid Portal site, Tasukeai Japan, was started by volunteers, in cooperation with the GoJ Cabinet Secretariat's Volunteer Coordination Office. (own site) 	<ul style="list-style-type: none"> Iwate Prefecture made a large-scale search for missing people. Its executive said their activities will focus more on refugee assistance after this. (A) Iwate Prefecture announced it will start to build temporary housing units for refugees from March 19. (NK) In Otsuchi Town of Iwate Prefecture, where the mayor and many officials became victims of tsunami, the number of missing persons is still unknown. In Kamaishi City and Yamada Town, the number of damaged houses is also unknown. (Iwate Nippo) 	<p>10:36 Cooling function of Fukushima Daiichi NPP was restored. (A)</p> <p>14:00 SDF began to spray water to cool Unit 3 of Fukushima Daiichi NPP. (NK)</p> <p>14:42 US Armed Force's high-pressure water cannons sprayed water to Unit 3. (NK)</p> <p>17:48 NISA changed its evaluation of the incidents. Unit 1,2 and 3 were evaluated as level 5, and Unit 4 as level 3. (NK)</p> <ul style="list-style-type: none"> TEPCO announced 4,546 spent fuel rods were kept in Unit 1-6 of Fukushima Daiichi NPP. (A) IAEA's 16 radiation measurement experts, along with one marine radiation measurement expert and one coordinator for international supports will arrive in Japan after March 18. (MOFA) Iwaki City began to deliver iodine tablet to persons under the age of 40 to prepare for emergency. The city requested them not to drink it before direction. (Fukushima Minpo) 	<ul style="list-style-type: none"> US Environmental Protection Agency and US Department of Energy announced radioactive materials were detected on the West Coast. (A) Iodine was detected in the drinking water of Tochigi, Gunma, Chiba, Saitama, Tokyo, and Niigata. MEXT announced it on March 19. (A) After quakes, 11,000 residents of Fukushima Pref. had moved to shelters in Yamagata, Ibaraki, Tochigi, Gunma, Saitama, Niigata Pref. (Fukushima Minpo) Minamisoma City, including both evacuation area and indoor-staying area, decided that all residents would evacuate outside of Fukushima Pref.(Fukushima Minpo) Iitate Village, located at indoor-staying area, decided that residents and evacuees who wished to would evacuate to Tochigi Pref. (Fukushima Minpo) 	<ul style="list-style-type: none"> Oriental Land Co. announced Tokyo Disney Land would be closed for a while. (A) Moody's Japan and S&P announced they downgraded the rating of TEPCO. (NK) Sumitomo Metal partially resumed operation of Kashima Steel Factory in Ibaraki Pref.(NK) Canon and Fuji Xerox stopped operations at several factories. (NK) 	<ul style="list-style-type: none"> Rolling blackout (Day 5, 13.6 million houses) Rate of operation in railways in Tokyo: Yamanote Line, Keihintohoku Line and Saikyo Line of JR-East were normal; Tokyo Metro Lines are about 80%; Seibu Lines are 40%; Tobu Lines are 50%. (NK) At night, TEPCO announced it could supply power to the entire service areas. (Sankei Shimbun) Large-scale system failure continued at Mizuho Bank for four consecutive business days. (A) Urayasu City in Chiba Pref. recognized ground liquefaction in almost all reclaimed areas. 19,000 houses had no water supply, and 7,300 houses had no gas supply. (Chiba Nippo) 	<p>15:00 Science Council of Japan held an emergency meeting on disaster in Northeast Japan and nuclear emergency. (own site)</p> <p>17:00 750 Refugees from Fukushima arrived at Saitama Super Arena. (A)</p> <ul style="list-style-type: none"> Shueisha Publishers postponed publication of Weekly Shonenjump, a bestselling Manga magazine, for a week, due to a shortage of paper. (A) MEXT requested the Commissioner of Nippon Professional Baseball to refrain from holding night games. (A) Theaters and concerts of foreign artists were canceled and the issue of CDs and films was postponed. (Y) Yokohama Bank suspended a service of automatic teller machine, not located at bank buildings, in order to save electric power from March 18. (NK) 	<ul style="list-style-type: none"> CNIC submitted a petition on Fukushima Daiichi NPP to GoJ. (CNIC) Solidarity Network with Migrants Japan proposed emergency appeal for supporting foreign migrants to GoJ. (own site) Japan NGO Center for International Cooperation (JANIC) announced it started "Japan Earthquake and Tsunami NGO Information Site." (JANIC)

	Disaster: Overview	National Government	Tsunami and Earthquake: Damages & Recovery	Nuclear Accidents	Impacts of Nuclear Disaster	Economy and Politics	Infrastructure	Urban Life, Media & Culture	Civil Society
3/19 (Sat)	<p>18:56 Aftershock (M6.2)</p> <p>21:00 Asahi Shimbun reported that 7,508 died, 17,653 were missing, and 334,854 were refugees (A)</p>	<p>17:00 President Tanigaki of the LDP refused to join the Cabinet as a Vice Prime Minister. (A)</p> <p>18:01 Prime Minister Kan met with US Ambassador Roos. (A)</p> <ul style="list-style-type: none"> Minister of Defense announced the number of dispatched rescue members of SDF reached 106,000. (A) 	<p>16:20 Ichihara City's Fire Department announced that it finally suppressed fires in Chiba Factory of Cosmo Oil which occurred just after the quake. (NK)</p> <p>17:00 Disaster Medical Assistance Team (DMAT) withdrew from Iwate Pref. More than 300 doctors and nurses supported its activities. (A)</p> <ul style="list-style-type: none"> Construction of temporary housing began in Kamaishi and Rikuzentakada in Iwate Pref. (A) 	<p>0:30 Tokyo Metropolitan Fire Department's fire engines injected water to Unit 3 of Fukushima NPP. (NK)</p> <p>6:50 Ministry of Defense measured internal temperature of Unit 1, 2, 3 and 4 by SDF's helicopter. (Sunday Mainichi)</p> <ul style="list-style-type: none"> Evacuees who left Fukushima Pref. reached 16,286. Prefectural Government sent an official to each prefecture which accepted them. (Fukushima Minpo) 	<p>15:30 1,200 refugees arrived at Saitama Super Arena from Futaba Town near Fukushima Daiichi NPP. The town would move its management functions there. (A)</p> <p>16:10 Chief Cabinet Secretary announced that elevated levels of radiation were detected in the milk of Kawamata, Fukushima Pref. and spinach of Ibaraki Pref. These surpassed the temporary limit for food safety. (A)</p> <ul style="list-style-type: none"> Fukushima Pref. requested dairy farmers in Kawamata Town and all farmers within 30 km from Fukushima Daiichi NPP to refrain from shipping and eating products. (Fukushima Minpo) More than 1,000 requests for radiation test were submitted to National Institute of Radiological Sciences until March 19. (A) 	<ul style="list-style-type: none"> Two major amusement parks, Toshimaen in Tokyo and Fujikyū Highland in Yamanashi, were reopened. (NK) 	<ul style="list-style-type: none"> Gasoline was supplied to gas stations in Fukushima for the first time after earthquakes. Up to 6.6 little could be fueled per car. (NK) Among a total 300 km of sea embankments in Iwate, Miyagi, and Fukushima Pref., 190 km collapsed completely or partially due to tsunami. MLIT reported. (A) 	<ul style="list-style-type: none"> Ueno Sakura Matsuri (Cherry Blossoms Festival) was canceled in Tokyo. (NK) Downtown streets in Sendai were crowded again with holiday shoppers. Many shops tried to reopen, thanks to an increased distribution of goods. (Kahoku Shinpo) 	<ul style="list-style-type: none"> Shapla Neer, a Tokyo-based NGO, sent staff to Kitaibaraki City. (JANIC) Peace Winds Japan extended its relief activities from Kesennuma to Minamisanriku and Rikuzentakada. (own site)

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3/20 (Sun)	<p>12:00 NPA reported total number of dead and missing reached 20,000. 8,133 died and 12,272 were missing (A)</p> <p>• Asahi Shimbun reported 8,450 died, 18,432 were unaccounted, 337,513 were evacuees (A)</p>	<p>• Chief Cabinet Secretary Edano said Fukushima Daiichi NPP would be decommissioned. (A)</p> <p>• GoJ's Headquarters for Assisting the Lives of Disaster Victims was established. It was separated from Headquarters for Emergency Disaster Control. (A)</p> <p>• Ministry of Defense announced it will dispatch two tanks to Fukushima NPP to remove debris. (NK)</p> <p>• MEXT reported the level of radioactive fallout. In some prefectures the level of radioactive cesium was 1000-2000 times as high as normal conditions. (A)</p>	<p>• Two survivors were rescued from debris in Ishinomaki after being hit by tsunami. (Y)</p> <p>• 9 cities and towns in Miyagi Pref. decided to allow burial without cremation, due to a lack of facilities. (Kahoku Shimpo)</p>	<p>3:40 Tokyo Metropolitan Fire Department finished continuous injection of seawater to Unit 3. Its total amounted to 2,400 ton for 13.5 hours. (A)</p> <p>8:20 SDF, with US Forces' fire engines, began to spray water to Unit 4. (A)</p> <p>12:40 NISA announced Unit 3 will start venting steam, which possibly included radioactive materials, to control pressure of containing vessels of Unit 3. (A)</p> <p>15:24 NISA announced an expected vent of Unit 3 was postponed, because internal pressure was kept stable. (A)</p> <p>15:46 TEPCO confirmed Unit 1 and 2 were connected to an external power source by new cables (A)</p> <p>• SDF resumed its injection of water into Unit 4. (A)</p> <p>• TEPCO confirmed cold shutdown of Unit 5 and 6 of Fukushima Daiichi NPP. (A)</p>	<p>11:30 TEPCO announced seven workers were exposed to radiation, higher than 100 mSv, the maximum exposure dose in emergency situations before March 15. (Kyodo Tsushin)</p> <p>15:10 Elevated levels of radiation were detected in milk of Iitate and 3 other towns. The level of Radioactive iodine was 4-17 times as high as provisional safety standards. (Fukushima Minpo)</p> <p>• Radioactive iodine, higher than the safety standard, was detected in drinking water of Kawamata, Fukushima. GoJ's local headquarters for nuclear disaster reported on March 20, although it was known on March 18. (Fukushima Minpo)</p> <p>• MEXT announced radioactive iodine was detected in drinking water taken on March 19 in 7 prefectures, including Tokyo. (A)</p>	<p>• Nissan resumed operation at 6 factories in Japan. (NK)</p> <p>• Sumitomo Metal resumed operation of a blast furnace in Kashima Factory in Ibaraki. (NK)</p> <p>• MLIT started an information webpage on radioactive dose nearby Haneda and Narita Airports in English and Japanese. (NK)</p>	<p>• 80 % of damaged mobile phone base stations, operated by KDDI and Softbank, were resumed. The number of NTT-East fixed-line phones which were out of order decreased to 148,500. 80% were recovered. (NK)</p>	<p>• Sanja Matsuri, one of the most well-known festivals in Tokyo, was canceled for the first time after the World War II. (A)</p> <p>• A lot of people felt "phantom earthquakes (Jishin-yoi)" after real ones. (Nikkan Sports)</p> <p>• Saitama Pref. Government announced it would provide a former high school building in Kazo as a temporary shelter for 1,200 evacuees from Futaba, Fukushima Pref. from April. (A)</p>	<p>• Tanpoposha had an emergency meeting on earthquake and nuclear crisis. (own site)</p> <p>• Solidarity Network with Migrants Japan and Zentoitsu Workers Union sent their first relief team to Minamisanriku Town. (own site)</p>

	Disaster: Overview	National Government	Tsunami and Earthquake: Damages & Recovery	Nuclear Accidents	Impacts of Nuclear Disaster	Economy and Politics	Infrastructure	Urban Life, Media & Culture	Civil Society
3/21 (Mon) (National Holiday)	<p>20:30 FDMA reported 8,078 died and 10,507 were still missing. Reported refugees amounted to 310,199. (FDMA)</p> <p>• Asahi Shimbun reported 8,805 died, 18,335 were unaccounted, 306,839 were evacuees. (A)</p>	<p>18:00 Chief Cabinet Secretary Edano announced GoJ issued instructions to food business operators to cease the shipping of leafy vegetables including spinach in Fukushima, Ibaraki, Tochigi, and Gunma Pref. and milk in Fukushima Pref. It was based on the ANEP. (A)</p> <p>• Japan Tourism Agency of MLIT announced rooms for 29,000 refugees had been reserved in hotels and inns for around one month. (A)</p> <p>• MHLW requested local governments to give direction to hotels and inns. Some evacuees from Fukushima had been refused to stay by Japanese-style inns. (Fukushima Minpo)</p> <p>• Deputy Chief Cabinet Secretary Fukuyama held the first press conference for foreign journalist. (NK)</p>	<p>• TEPCO announced that it estimated that the height of tsunami hitting Fukushima NPP reached at least 14 m. (NK)</p> <p>• Ministry of Defense announced that a new relief system, called "Cells for supporting civil life," would start in affected areas. SDF played a key role for linking and coordinating between victims' needs and municipalities (NK)</p> <p>• MAFF reported the number of total damaged or lost fishing vessels amounted to 2,346 as of March 21 in affected areas except Iwate and Miyagi Pref. (NK)</p>	<p>4:00 Ambient radiation dose rate recorded one of its peaks (JAEA estimation, 201108)</p> <p>14:30 High level radioactive materials were detected in seawater of drain outlets of Unit 1 to 4. The level of iodine-131 was 126.7 times above the maximum level allowable (NK)</p> <p>• MHLW announced 965 Bq/kg of radioactive iodine, three times as high as provisional limit, was detected in drinking water taken at about noon of March 20 in Iitate, Fukushima (NK)</p>	<p>8:30 Two Russian fighter aircrafts with dust collection pots entered into Japan's air defense identification zone. (A)</p> <p>16:00 In Iwaki City, Fukushima Pref., population and goods had decreased since nuclear accidents, although it was at the outside of 30km Zone from NPP. Water and cooked rice were delivered to citizens in the city's public halls. (A)</p> <p>• Total number of evacuees who left Fukushima Pref. had reached 23,000. It was expected to increase. (Fukushima Minpo)</p> <p>• Rainfall was reported in the Metropolitan region, which caused high radioactive contamination in Kanto (Greater Tokyo) region. In shinjuku, 0.108 μSv/h was detected. (A)</p>	<p>10:00 McDonald's reopened a shop in Sendai. All shops in Miyagi Pref. had been closed since the earthquakes. (A)</p> <p>• Oil factories in Tokyo-Yokohama area were expected to restore their functions soon. (Kanagawa Shimbun)</p> <p>• General Motors stopped operation of a small truck factory in Louisiana due to shortage of parts from Japan. (A)</p> <p>• PEUGEOT CITROËN announced its production of engines would be influenced from March 23 by parts shortages. (A)</p>	<p>• The number of houses with no electricity decreased from 4,860,000 to 220,000 in Tohoku region (NK)</p> <p>• NTT DOCOMO started the services of "recovery area map" for mobile phone in Iwate, Miyagi and Fukushima Pref. (NK)</p>	<p>5:00 The number of damaged national cultural properties reached 295 as of March 21. The Agency for Cultural Affairs reported. (A)</p> <p>• International Skating Union finally canceled its 2011 World Figure Skating Championships in Japan, originally to be held in Tokyo from March 21. (A)</p> <p>• TMG announced two large convention halls, Tokyo Big Site (3,000) and Tokyo International Forum (1,000), would be provided as temporary shelters to evacuees from Tohoku (A)</p> <p>• Asahi Shimbun published an apology on Internet for their careless expression in the front-page of AERA, a weekly magazine, March 28, featuring a photograph of a man of protective gear with the title "Radiation is coming." Objections were raised by readers (NK)</p>	

	Disaster: Overview	National Government	Tsunami and Earthquake: Damages & Recovery	Nuclear Accidents	Impacts of Nuclear Disaster	Economy and Politics	Infrastructure	Urban Life, Media & Culture	Civil Society
3/22 (Tue)	<p>16:19 Aftershock (M6.3)</p> <p>18:19 Aftershock (M6.3)</p> <p>18:44 Aftershock (M6.2)</p>	<p>9:25 MEXT announced it started monitoring radiation of seawater near Fukushima Daiichi NPP. (A)</p> <p>• Media reported that Nuclear Safety Technology Center sent the result of SPEEDI just after two hours after the 3-11 earthquake to NSC, but the data had not been released to the press. (A)</p> <p>• Japan and US Governments established a joint meeting for Fukushima Daiichi NPP, including government officials, nuclear professionals, and military officials. (A)</p> <p>• MHLW requested Iwate, Miyagi and Fukushima Prefectural Governments to rely mainly upon not SDF but private service companies for transportation and burial of victims (A)</p>	<p>9:30 "Miyako Disaster FM Station" was opened in Miyako City. (A)</p> <p>• In Higashimatsushima City, 30 tsunami victims were buried without cremation. It was an unusual method in Japan. The city planned to build a cemetery for 1,000 victims on the site of a former recycle center. (NK)</p>	<p>15:00 TEPCO announced radioactive materials, 16.4 times as high as safety standard, were detected in the seawater taken at a site 16 km off the NPP. (A)</p> <p>19:40 At Unit 6 of Fukushima Daiichi NPP the electric power source was shifted from emergency battery to external one. An external power source became available at all units. (A)</p> <p>• IRSN, a national nuclear safety institute in France, began to release the result of its simulation on the dispersion of radiation from Fukushima NPP in Japanese language. (IRSN)</p>	<p>• In the morning, relatively high radiation doze was detected in Metropolitan region due to rainfall. (A)</p> <p>• MEXT reported 5,300 Bq per square meter of cesium-137 and 32,000 Bq per square meter of iodine-131 were detected from fallen dusts collected in Shinjuku, Tokyo. Both levels were around ten times as high as the previous day (A)</p> <p>• US Food and Drug Administration banned the import of milk, other dairy products, fresh vegetables, and fruits produced in Fukushima, Ibaraki, Tochigi, and Gunma Pref. (A)</p> <p>• Stars and Stripes, a semi-official paper of US Forces, reported around 9,000 applied to the voluntary evacuation program for dependent families of US Forces in Japan (A)</p>	<p>• Toyota announced factories in Japan would be closed from March 23 to 26 (NK)</p> <p>• Asahi Breweries resumed operation of its Ibaraki Factory. (NK)</p> <p>• SONY announced production would be partially shut down in 5 factories in West Japan from March 22 to 31, while it would be resumed in a factory in Tochigi Pref. (A)</p> <p>• Mitsubishi-Motors resumed 3 factories in Japan. (NK)</p> <p>• 3 major banks and 3 local banks stopped operation of ATM located outside of the bank, more than 1,000 in Metropolitan Tokyo region on March 22, due to cutback in electric power. (NK)</p>	<p>• Rolling blackout (Day 6, 9.9 million houses)</p> <p>10:00 Entire Tohoku Expressway became available only for large-size vehicles. (A)</p> <p>10:00 Among total 870 km of damaged road in East Japan, 813 km were repaired. (Nikkei Construction)</p>	<p>20:00 NHK ended live streaming of AM Radio 1 on Internet. (NHK)</p> <p>• Japan Printing Ink Makers Association requested The Japan Newspaper Publishers & Editors Association to reduce a quantity of ink and a type of colors, used for publications, due to shortages of raw materials. (NK)</p> <p>• LOUIS VUITTON reopened 19 shops in East Japan except in Sendai, Fukushima, and Ibaraki. It had closed 22 shops out of 58 in Japan since March 14. (NK)</p>	<p>• Kalabaw-no-kai, a Yokohama-based NGO, started "Q&A Service for Foreign Residents" by telephone. (Kanagawa Shimbun)</p>

	Disaster: Overview	National Government	Tsunami and Earthquake: Damages & Recovery	Nuclear Accidents	Impacts of Nuclear Disaster	Economy and Politics	Infrastructure	Urban Life, Media & Culture	Civil Society
3/23 (Wed)	7:12 Aftershock (M6.0)	<p>17:05 Chief Cabinet Secretary Edano recommended that drinking water in Tokyo should not be given to infants, to avoid all possible risk. (A)</p> <p>21:00 NSC released the result of SPEEDI for the first time after the accidents. The Commissioner Madarame said no emergent response would be required at this moment. (A)</p> <p>• Chief Cabinet Secretary said the result of SPEEDI simulation indicated cumulative dose could be higher than 100 mSv/year even outside of 30 km zone from NPP. (Fukushima Minpo)</p> <p>• MOFA announced 27 countries' embassy in Tokyo had been closed temporarily. Its functions were moved to West Japan in many cases. (A)</p>	<p>• MOFF reported submerged farmlands had reached 20,000 ha in total in Iwate, Miyagi, and Fukushima Pref. (A)</p> <p>• GoJ estimated that total economic loss caused directly by the disaster would amount to JPY 16-25 trillion. Losses due to nuclear disaster were not included. (A)</p> <p>• In Kesenuma, gas stations began to sell gasoline again to regular vehicles. (Kahoku Shinpo)</p> <p>• Yamato Transport announced it organized a special task force for assisting local governments to transport relief goods in Iwate, Miyagi, and Fukushima Pref. (NK)</p>	<p>16:20 Black smoke was found at Unit 3 of Fukushima Daiichi NPP. Workers evacuated from there. (A)</p>	<p>10:00 MEXT announced high-level radioactive cesium was detected in soil samples taken at Iitate. (A)</p> <p>14:20 TMG announced the radioactive iodine was detected in water sample taken the previous day in Kanamachi Purification Plant. As its level was more than the recommended limit for infants, TMG requested those who live in central Tokyo area (23 Wards) not give water to infants. (A)</p> <p>21:00 TMG announced it would distribute three 550 ml bottles of water to each baby; its total amounted to 240,000. (A)</p> <p>• In Minamisoma, designated as indoor evacuation area, emergency patrol had been organized by volunteer. (Fukushima Minpo)</p>	<p>8:30 NEC resumed operation in 5 factories in Miyagi, Iwate, and Fukushima Pref. (A)</p> <p>14:30 Nikkei Stock Average suddenly dropped to 9,387.95, due to TMG's announcement of radiation in water of Tokyo, causing an expansion of anxiety about the future. (A)</p> <p>• 7-Eleven Japan had reopened 85 % of 600 closed stores. Lawson, another convenience store chain, had reopened 310 of 390 closed stores. (NK)</p> <p>• Suntory resumed its TV commercial ad. (Senden Kaigi)</p>	<p>• Rolling blackout (Day 7, 4.6 million houses)</p> <p>• The number of access to Disaster Message Board Service for mobile phone, operated by NTT DOCOMO, had reached 3.66 million by March 23. (NK)</p>	<p>• In the Evening, drinking water were almost sold out in convenience stores and supermarkets in downtown Tokyo. (NK)</p> <p>• Shueisha announced it would start subscribing of Weekly Shonenjump, No. 15 issued on March 14, on Internet, responding to the delay in distribution due to the earthquakes. (Nikkan Sports)</p> <p>• Shiki Theater Company reopened its theaters for musicals in Tokyo and Yokohama. (A)</p> <p>• Shows and events in March were cancelled by major talent agencies, such as Johnny's & Associates or Avex Group. (A)</p>	<p>12:30 CNIC and Group of Concerned Scientists and Engineers Calling for the Closure of the Kashiwazaki-Kariwa Nuclear Power Plant had a joint meeting at Diet building. (CNIC)</p> <p>18:00 Peace Boat, a Tokyo-based NGO, held a meeting for 200 wishing volunteers in Tokyo. They were expected to visit Ishinomaki. (Peace Boat)</p> <p>• ASHINAGA, one of the largest private funds for supporting orphans in Japan, sent six staffs to affected areas. (ASHINAGA)</p> <p>• Japanese Trade Union Confederation (Rengo) held a emergency executive meeting on the disaster. Staffs of GoJ's Volunteer Coordination Office joined it. (JTUC)</p>

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3/24 (Thu)	17:21 Aftershock (M6.1)	<ul style="list-style-type: none"> Ministry of Defense raised compensation given to SDF personnel as for loss of life from JPY 60million to 90 million. (A) MHLW announced 300 Bq/kg of radioactive iodine, higher than safety standard, was detected in milk produced in 5 municipalities in Fukushima Pref. (A) UNOCHA and other UN organizations sent a research team to Miyagi Pref. and Ishinomaki to discuss the form of support by international NGOs. (MOFA) 	<ul style="list-style-type: none"> In Rikuzentakada, Iwate Pref., the number of refugees had increased again since March 21. Residents who had remained at home finally came to shelters due to shortages of food. (A) Iwate Nippo released the result of the survey of tsunami refugees (conducted on March 20-22). People answered the most serious difficulties in shelter life was that they "could not take a bath." (25.2%) (Iwate Nippo) 	<ul style="list-style-type: none"> Three workers who layed cables at Unit 3 were exposed to radiation in Fukushima Daiichi NPP. (A) Water in the spent fuel pools of Unit 4 boiled. (Sunday Mainichi) 	<p>12:30 Chiba Prefecture announced radioactive materials, above the recommended level for infants, were detected in water of Matsudo City's two purification plants/ (A)</p> <p>13:15 TMG lifted a ban on restriction of infants' drinking water. The radiation level of the water taken in the morning became below safety limit. (A)</p> <ul style="list-style-type: none"> Kawaguchi City in Saitama Pref. announced radioactive iodine, at levels more than the recommended one for infants, were detected in water taken in Shingo Purification Plant on March 22. (A) 	<ul style="list-style-type: none"> Itoyokado, one of the largest supermarkets, began to sell bottled water preferentially to parents who had infants in its 117 stores of Metropolitan region. (A) Nissan resumed production of vehicles in some factories. (NK) Toyota announced it would resume operation firstly at two factories, which produced Prius, on March 28. (A) Keidanren (Japan Business Federation) announced the amount of donation had reached JPY 5.3 billion from 650 member corporations by March 24. (A) 	<ul style="list-style-type: none"> Rolling blackout (Day 8, 2.5 million houses) 6:00 Entire Tohoku Expressway became available again for regular vehicles. (A) 18:00 1,755 mobile phone base stations, operated by NTT DOCOMO, KDDI, and Softbank, were still out of service. 90% of NTT-East fixed-line phones which were out of order were recovered. (A) 	<ul style="list-style-type: none"> The Mayor of Minamisoma Sakurai submitted a video message to Youtube. He appealed to international audience that GoJ's instructions to affected residents of nuclear accidents were inconsistent and unfair (Fukushima Minpo) In Yokohama, more parents decided to evacuate voluntarily with children to avoid radiation. (Kanagawa Shimbun) 	<ul style="list-style-type: none"> JNCSW said volunteer centers for disaster relief were opened in 57 municipalities in Iwate, Miyagi, and Fukushima Pref. (A) Daichi wo Mamoru Kai, a Tokyo-based social enterprise, established the Funds for supporting affected farmers. (own website) Japan Radiological Society (JRS) released a special report on the influences of radioactive materials in drinking water (JRS)

	Disaster: Overview	National Government	Tsunami and Earthquake: Damages & Recovery	Nuclear Accidents	Impacts of Nuclear Disaster	Economy and Politics	Infrastructure	Urban Life, Media & Culture	Civil Society
3/25 (Fri)	<p>11:00 NPA reported 10,035 died and 17,541 were still missing. (A) 20:36 Aftershock (M6.2)</p>	<ul style="list-style-type: none"> • AM Chief Cabinet Secretary Edano requested residents in 20-30 km zone of Fukushima Daiichi NPP to evacuate "voluntarily" (A) • Mayors of municipalities at a 20-30 km zone criticized GoJ's instruction of "voluntary" evacuation, since it put the responsibility on municipalities. (Fukushima Minpo) • According to TEPCO's estimate, carbon dioxide would increase by 21million ton, if all power generated by Fukushima Daiichi NPP would be shifted to oil-fired power plant. GoJ released. (A) • MLIT issued instructions to taxi companies association, requesting taxi drivers not to refuse passengers. Some days before, passengers who wished to go to Fukushima Pref. from Tochigi had been refused to ride. (NK) 	<p>19:33 Prime Minister gave a message to people in Japan, two weeks after the Earthquake (A)</p> <ul style="list-style-type: none"> • GoJ gave notice to seven affected prefectures of new guideline on removal of debris, which allowed the removal of damaged housing, cars and ships without permission of the original owners. (A) • In Kamaishi, Iwate Pref. tsunami victims were buried without cremation. Otsuchi Town decided to bury unidentifiable victims without cremation. (NK) 	<p>3:46 TEPCO announced that the very high-level of radiation was detected in the water taken at the basement of Unit 3's turbine building, where workers had been exposed to radiation the previous day. (A)</p> <p>13:30 Kawasaki City Fire Department injected water to Unit 3 of Fukushima Daiichi NPP (Sunday Mainichi)</p> <p>15:40 Interjected water to Unit. 1 of Fukushima Daiichi NPP was shifted from seawater to fresh water. At 18:00, the same shift was finished also at Unit 3. (A)</p> <ul style="list-style-type: none"> • MEXT reported 1.4 mSv/day was detected at the border between Iitate and Minamisoma. (Fukushima Minpo) 	<ul style="list-style-type: none"> • In Utsunomiya, Tochigi Pref., radioactive iodine was detected in water taken on March 24. Its level, 108 Bq/kg, was higher than provisional limit for infants. (NK) 21:30 NIRS reported the result of radiation test of three workers who were exposed to radiation at NPP. Two workers' results were 2-6 times higher than the allowable limit. (A) • Fukushima Pref. Government requested all farmers to cease farm work to avoid dispersion of radioactive materials. (A) • Chiba Pref. Government announced radioactive iodine, higher than provisional limit, was detected in leafy vegetables, produced in two municipalities. (NK) 	<ul style="list-style-type: none"> • Major home building companies, including Sekisui House and Daiwa House, began to prepare for construction of 10,000 temporary houses for refugees by the end of May. (A) • Mizuho Bank officially admitted that the large-scale system failure was caused by a concentration of relief donation. (A) • The total production of cars, both passenger and commercial, had decreased by 385,000, if compared to the normal year, due to the disaster, by March 25. (NK) • Apple postponed the sales of iPad2 in Japan, expected to start on March 25. (NK) 	<ul style="list-style-type: none"> • Rolling blackout(Day 9, 2.9 million houses) • GoJ's Electricity Supply Emergency Headquarters announced that it would decide on a policy for the reduction of power demand in summer, by the end of April. (A) • TEPCO announced that, according to its estimation, a shortage of electric power would reach 8.5million kW in summer. (NK) 	<p>24:00 NHK ended live streaming of its TV program (General Channel) on Internet (NHK)</p> <ul style="list-style-type: none"> • Ryoko Yamagishi, a comic artist, published her 1988 work, "Phaethon," which had raised a question to nuclear power generation after Chernobyl disaster, on the Internet. (A) • Songs for Japan, a charity compilation album was released through the iTunes Store and Sony. 38 artists joined it. (A) • The number of workers' consultation on layoff had increased in Iwate, Miyagi, Fukushima, and Aomori Pref. due to the disaster. Its total reached 378 by March 25. (Kahoku Shinpo) 	<ul style="list-style-type: none"> • "Faith-Based Network for Earthquake Relief in Japan" was opened as a Facebook page on March 13 by scholars on religion. (A) • Sendai City's multi-lingual support center had given advice to 10-20 persons per day. (NK) • Hairoaction, a Fukushima-based network seeking for a decommission of Fukushima NPP released "Urgent Statement on the Nuclear Disaster in Fukushima." (FP) • Japanese Trade Union Confederation decided "Tsunagarō Nippon (Unite Japan)" as a slogan for supporting activities. (JTUC) • Tokyo University of Foreign Studies started a multilingual website for disaster information. (TUFS)