The 2011 monsoon season initially brought heavy flooding to northern Thailand and neighboring countries starting July. Tropical Storm Nock-ten, and typhoons, contributed to massive water buildup and inundation.

The northern provinces of Bung Kan, Chiang Mai, Lampang, Lamphun, Mae Hong Son, Nakhon Phanom, Nan, Nong Khai, Phrae, Sakon Nakhon, Udon Thani and Uttaradit were affected before the floodwaters flowed downstream of the overflowing Yom and Nan Rivers and inundated the upper central provinces of Phichit, Phitsanulok, Sukhothai.

By mid-September, several lower central provinces had been affected by the floods (including Ang Thong, Ayutthaya, Chai Nat, Nakhon Sawan, Nonthaburi, Pathum Thani, Sing Buri, Suphan Buri and Uthai Thani), as the floodwaters continued to move downstream.

The floodwaters have reached Bangkok in October, and parts of the city are currently under water.

The current focus is minimizing fatalities and damage as flood waters move through Bangkok. The central business district of Bangkok has been relatively spared, but oncoming high tides pose additional threats.

NOTE: Flood waters have inundated more than two-thirds of the country causing loss of life and livestock, submergence of rice and other crops, closure of hundreds of factories and severe damage to buildings and infrastructure.

The US Department of State recommends against all but essential travel to flood-affected areas of the central and lower parts of northern Thailand, including Bangkok. The US Embassy in Bangkok will continue to provide essential services to American citizens.
FLOODING IMPACT COMPARISON

Flooding plagued much of Southeast Asia in the 2011 monsoon season. Thailand, Cambodia, Burma (Myanmar), Vietnam, Laos, and the Philippines—which experienced heavy rainfall from intense tropical storms—suffered a collective death toll of more than 1,000, according to The Diplomat. More than 400 people drowned in Thailand, and 250 perished in Cambodia. Besides the human toll, the floods swamped agricultural land. The United Nations warned that the inundated fields raised the possibility of food shortages.

By November 1, Voice of America reported that many communities in Thailand had spent weeks under a meter (3 feet) or more of water, and floods had affected two-thirds of the country’s provinces. The threat of floods in Bangkok was growing. At the beginning of November, the Bangkok Post reported that all 50 districts of the capital were at risk of flooding. The Chao Phraya River flows through the city to the Gulf of Thailand, but high tides from the sea had pushed water back up the river for three days, just when high water from floods threatened to overwhelm city canals.

Across the border, flood waters transformed northeastern Cambodia into “a vast inland sea,” The Guardian reported. The presence of stagnant water contributed to the disease toll, as did the displacement that forced many residents to live in close quarters with livestock. Dengue fever was on the rise, and doctors had diagnosed the first cases of cholera.
CURRENT SITUATION – THAILAND

SUMMARY: Currently, 24 provinces are inundated

- Floodwaters have begun receding in some provinces north of the capital, and a major cleanup is planned in Ayutthaya began on 7 November. But the runoff has massed around Bangkok and completely submerged some of the city's outer neighborhoods.

- The crest of the floodwaters is currently passing through Bangkok.

AFFECTED AREAS AND PEOPLE: 141 Districts, 1,067, Sub-Districts, 7,543 villages, 1,078,502 families, 2,921,898 people.

FATALITIES: The total fatalities are 529 deaths and 2 missing (1 in Mae Hong Son, and 1 in Uttaradit).

SHELTER: The government has set up more than 1,700 shelters nationwide, and more than 113,000 people have taken refuge inside.

SCHOOLS: A total of 2,536 education institutions have been flooded

TRANSPORTATION:

- HIGHWAYS: 71 main highways in 10 provinces impassable.
- RURAL ROADS: 193 rural roads in 29 provinces impassable.
- RAILWAYS: 12 Routes are impacted.
CURRENT SITUATION – THAILAND

ECONOMIC IMPACT:

• Flooding continues to compound the damage to Thailand’s economy, both domestically and internationally. Economists are now estimating total damages will reach up to 300 billion Thai baht, or US $9.7 billion.

• The 2011 growth forecast dropped to 2.6% from 3.5%, compared to the estimate of around 5.4% for the entirety of Southeast Asia.

• More than 1,000 factories have been closed, causing companies to slash production and prices to spike around the world. Auto-makers that are struggling to sustain production include Ford, Mazda, Hino, Isuzu, Mitsubishi, and Nissan.

• The supply chain for electronics is being affected as well, as factories that produce hard drives have closed due to the flooding. Production of camera parts has also been handicapped, affecting shipments of cameras by Sony, Nikon, and Canon.

• Food production is also down, as Thailand has lost more than 10% of its farmable land, much of it normally used for rice production. It is difficult to estimate how much total farmland has been rendered unusable due to the quick spreading of water, but the impact estimates are expected to increase. This will likely increase pressure on global food prices in the coming year.

ESTIMATED AGRICULTURAL IMPACT:

- 10,986,252 rai of farming areas (1 rai=1,600 square meters)
- 194,012 rai of fish/shrimp ponds
- 13.28 million heads of livestock
  (Ministry of Agriculture and Cooperatives, 6 NOV 2011)

SOURCES: FLOOD SITREP 8 NOV 11 | FLOOD SITREP 7 NOV 11 | FLOOD SITREP 6 NOV 11 | FLOOD SITREP 5 NOV 11 | FLOOD SITREP 4 NOV 11 | GUY CARP | VOA | GC IDEAS | US EMBASSY – THAILAND
CURRENT SITUATION – THAILAND

24 RECENTLY FLOODED PROVINCES (8 NOV 2011):

- **North**: Phichit, Nakhon Sawan, and Uthai Thani
- **Central**: Chai Nat, Sing Buri, Ang Thong, Phra Nakhon Si Ayutthaya, Lopburi, Saraburi, Suphan Buri, Nakhon Pathom, Pathumthani, Nonthaburi, Samutsakhon, Samut Prakarn and Bangkok
- **Northeast**: Ubon Ratchathani, Srisaket, Roi-et, Mahasarakham and Kalasin
- **Eastern**: Chacheongsao, Nakhon Nayok and Prachinburi

CAPACITY OF MAJOR DAMS (8 NOV 2011):

- **Bhumibol Dam**: it reached 99.4 Percent of retention capacity. 28 million cubic meters received, 30 million cubic meters discharged. The additional retention is 77 million cubic meters.
- **Sirikit Dam**: it reached 99.6 Percent of retention capacity. 16 million cubic meters received, 15 million cubic meters discharged. The additional retention is 31 million cubic meters.
- **Kwae Noi Dam**: it reached 100 Percent of retention capacity. 0.41 million cubic meters received, 1.7 million cubic meters discharged.
- **Pasak Dam**: it reached 129 Percent of retention capacity. 1.6 million cubic meters received, 1.8 million cubic meters discharged.
- **Ubonrat Dam (Khon Kaen Province)**: it reaches 112 Percent of retention capacity. 10 million cubic meters received, 20 million cubic meters discharged.
- **Lampao Dam (Kalasin Province)**: it reaches 99 Percent of retention capacity. 4 million cubic meters received, 3 million cubic meters discharged.

WATERSHED:

- **The North Basins (Ping and Yom basin)**: There is still river runoff in many areas of Ping Basin is decreasing 2.59 m. below river bank in Bunpotpisai District of Nakhon Sawan province while the Yom Basin, an inundation is decreasing 1.68 m. below river bank in Bang Rakum District of Phitsanuloke Province; Potalay District 0.11 m. below river bank respectively.
- **Nan Basin** the overflow is likely to decrease below river bank 1.03 m. in Chumsang District of Nakhon Sawan Province.
- **The Northeastern Basins (Mun and Chi basin)**: Inundation is reported in many areas, and likely to decrease
- **The Central Basins (Thachine and Chao Phraya basin)**: The overflow is likely to decrease at Thachine River in Meuang and Song Pee Nong District of Suphan Buri Province, 0.24 m. and 0.86 m. above river bank respectively; Banlane District and Nakhon Chai Sri of Nakhon Pathom Province, 1.55 m. and 1.13 m. below river respectively. The inundation are reported at Mueang District of Nakhon Sawan Province at 1.01 m. below river bank, Sap Praya District of Chainat Province over at 0.11 m. over river bank, Singburi province at 0.86 m. below river bank, Ang Thong province at 0.37 m. below river bank, Phra Nakhon Si Ayutthaya Province at 0.77 m below river bank and Bang Sai District of Phra Nakhon Si Ayutthaya Province at 0.50 m. over river bank. The overflow is likely to decrease.

SOURCES: [FLOOD SITREP 8 NOV 11](#) | [FLOOD SITREP 7 NOV 11](#) | [FLOOD SITREP 6 NOV 11](#) | [FLOOD SITREP 5 NOV 11](#) | [FLOOD SITREP 4 NOV 11](#) | [BANGKOK POST](#) | [IFRC](#) | [GUY CARP](#) | [VOA](#) | [GC IDEAS](#)
CURRENT SITUATION – BANGKOK

FLOODING:

• Over 9 million people live in Bangkok and much of the city sits less than 2 meters above sea level.

• On 21 Oct. Prime Minister Yingluck assumed powers under the Disaster Prevention and Mitigation Act (2007), granting the PM full authority to implement a nationwide disaster relief plan. Invoking this law gave her full authority over state officials around the country.

• Evacuations have been ordered in 12 of Bangkok’s 50 districts, with residents of the northern district of Klong Sam Wa told to leave on Monday, 7 NOV 2011. Many have chosen to stay in their homes despite risks including electrocution, disease and lack of food and drinking water, complicating relief efforts.

VICTORY MONUMENT: Bangkok officials are aiming to halt the water’s advance at the Sam Sen canal, which runs just above Victory Monument, a major traffic intersection northeast of the city center and a stop on Bangkok’s Skytrain elevated railway network, according to BMA.

SOURCES: THAI TRAVEL BLOGS | U.S. EMBASSY - BANGKOK | BANGKOK POST | FLOOD SITREP 6 NOV 11 | FLOOD SITREP 5 NOV 11 | FLOOD SITREP 4 NOV 11
THE BANGKOK METROPOLITAN ADMINISTRATION (BMA):

The overflow on several canals have been reported:

• Khlong Prem Prachakorn
• Khlong Bang Khen on the segment of Vibhavadi Road
• Khlong Bang Sue on the segment of Phahol Yothin Road
• Khlong Lad Prao in the segment of Wat Lad Prao and Soi Sena Nikom

On the Thonburi side the following canals have overflow:

• Khlong Maha Sawat
• Khlong Bang Prom on the segments of Khlong Chak Pra
• Kanjana Pisek Road and Buddha Monthon 3 Road
• Khlong Bang Chueak Nang on the segment of Buddha Monthon 2 Road, Khlong Bang Waek on the segments of Khlong Tawee Watana and Buddha Monthon 1 Road
• Khlong Bang Chak on the segment of Buddha Monthon 2 Road.

• BMA had declared the areas of Lad Yao Sub-District, Sena Nikon Sub-District and Chandra Kasem Sub-District of the Chatuchak District particularly the areas along the western side of the Khlong Prem Prachakorn for the length of 100 meters and the areas along the Khlong next to the railroad track for the length of 100 meters to be the area requiring an evacuation.

• The Nong Kang Plu Sub-District of Nong Khaem District has also been designated as the area requiring evacuation.

• BMA has issued an announcement to those residing in the areas of Nong Khaem Sub-District of Nong Khaem District to take extra precaution of the flooding situation and to move their valuable belongings to higher ground and also be prepared to evacuate the underage, sick people and elderly in the case that an announcement for the evacuation is issued

SOURCES:
THAI TRAVEL BLOGS | RELIEF WEB | BANGKOK POST
Thailand Weather Forecast (7 – 14 November):

- The ridge of high pressure covers upper Thailand and brings cool weather with morning fog over the North and the Northeast of Thailand.
- The monsoon trough lies across lower southern Thailand and the Gulf of Thailand to the active low cell over the South China Sea.
- Scattered thundershowers and isolated heavy rain are likely over the South from Surat Thani southward.
- 9 November, the active low cell will move to the coast of Vietnam. Rain is expected over the eastern Northeast and the East of Thailand. The wind-waves in the Gulf of Thailand grow stronger with 2 meters high. All ships should proceed with caution.

Sources: [THAILAND FLOOD MONITORING SYSTEM](#) [THAI METEOROLOGICAL DEPARTMENT SURFACE WEATHER MAPS](#) [SOUTH EAST ASIA DAILY RAINFALL ESTIMATE (USGS AND USAID)](#) [WUNDERGROUND BANGKOK WEATHER FORECAST](#)
FLOOD RELIEF OPERATIONS:

• The Flood Relief Operations Command (FROC) has been relocated from the inundated Don Mueang airport to the Energy Complex of the Energy Ministry at Lat Phrao intersection on Vibhavadi Rangsit Road. The relocation order came rather late as floodwaters surged into the first floor of the domestic terminal building and disrupted relocation efforts on 29 Oct.

• Flights through Don Mueang have been halted until further notice and transferred to Suvarnabhumi Airport, which remains operational.

• On 21 Oct. 2011, the PM assumed direct command of flood control under the Disaster Prevention and Mitigation Act.

The Energy Ministry, where the FROC relocated to on Oct. 29, is now surrounded by floodwaters. As floodwaters rose, PTT PCL, Thailand’s biggest energy company with offices in the same complex, relocated its operations on Nov. 4, and Thai Airways International PCL began moving staff from its nearby head office.

The water level has reached 20 cm, but the site is being continually drained, and the compound is surrounded by an 80-cm-high flood barrier. Site command is on alert to evacuate in the event that the barriers break, but the gov’t states it has no plan as of yet to relocate the FROC again.

FROC COMMAND:

• The Justice Minister/Police General Pracha Promnok is the FROC director; Interior Minister Pranai Suwannarat is the deputy director.

• Science and Technology Minister Plodprasop Suraswadi is the FROC chief of operations, responsible for evacuation and flood prevention.

• The Transport Minister Sukumpol Suwanatat is the FROC directing chief, responsible for warning and relief systems.

DEPARTMENT OF DISASTER PREVENTION AND MITIGATION

• Assigned Deputy Director General (Mr. Prateep Kiratirheka) to run the joint mission for sand bags production by mobilizing manpower from DDPM Emergency Response Team (ERT) together with DDPM officials and Territorial Defense volunteers.

• On 6 Nov 2011, DDPM personnel and volunteers completed production of 500,000 sandbags and 3,300 large sandbags in order to support the efforts of the Air Force, BMA, and Metropolitan Waterworks Authority (MWA), which are fighting the floodwaters at the Pratunam Pra In water gate, the Water Supply System of MWA, and the Sam Wa Canal.

• They are expecting to accelerate to produced additional 2,900 big sand bags in order to support flood fighting activities. DDPM will support 460 cubic meters to compete 1,500 cubic meters sand as the Ministry of Transportation and BMA requested. DDPM and Volunteers plan on producing 150,000 sand bags and 3,500 cubic meters.

DEPARTMENT OF PUBLIC RELATIONS:

• Responsible for broadcasting public early-warning messages and evacuation orders, and summarizing the activities of the FROC.

• Live coverage of flood assistance is broadcast on all National Radio and TV channels (11 stations). Coverage includes victim stress-relief programs, evacuation, and other important announcements.

• Location: FROC Public Relation Office 1st Floor, Energy Complex Ministry of Energy

• E-mail address: IOCPRD@hotmail.com IOCPRD@gmail.com

SOURCE: FLOOD SITREP 8 NOV 11 | FLOOD SITREP 7 NOV 11 | FLOOD SITREP 6 NOV 11 | FLOOD SITREP 5 NOV 11 | FLOOD SITREP 4 NOV 11 | BLOOMBERG 7 NOV
MINISTRY OF DEFENSE:

- Mobilized resources to the flood affected areas, including immediate relief provision; search and rescue operation, medical care service provision; preparation of sandbags; propelling of water into the sea especially in the Bangkok and nearby areas such as Chao Phraya, Nakhon Pathom; preparation of aircrafts and vehicles for relief items and evacuees transportation, and public notification; and excavation of all rivers and canals to accelerate the water drainage.

- Constructed levy sandbags and secure the levies at many critical areas such as Water Supply Canal, Taweewattana Canal, Phuttamonton Road sai 2-4.

- Supported boats to push out water at several important canals and river such as Pra Ong Chao Chaiyanuchit Canal in Nakhon Pathom Province, Praves Buriram Canal, Nakhon Neaung Ket Canal, Udom Chollajorn Canal, Premprachakorn Canal, Bang Bua Canal, San Sab Canal, Lad Praw Canal and Mahanak Canal in BMA.

DEPARTMENT OF WATER RESOURCES

- (DWR) provided 180 water pumps to support water propelling to the sea in the west through Tha Chine River during 29 October – 7 November 2011.

- On 7 November, 676,524 cubic metres were propelled, the total amount of 4,305,388 cubic meters were drained.

- They also provide the amount of 57,427 liters of drinking water and installed two purification production machines to distribute to people in Taweewatana Canal and DWR.

- At present, they distributed 1 million DASTA BALL for water Treatment to affected provinces and people.

MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT

THE PERMANENT SECRETARY assigned Department of Natural Parks, Wildlife and Plants Conservation, Department of Forestry, Department of Water Resource and Department of Groundwater Resources will visit 30 flood affected BMA districts to distribute relief items, drinking water and liquid and bar of Effective Microorganism from 8-12 November 2011.

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SOURCE: FLOOD SITREP 8 NOV 11 | FLOOD SITREP 7 NOV 11 | FLOOD SITREP 6 NOV 11 | FLOOD SITREP 5 NOV 11 | FLOOD SITREP 4 NOV 11 | BLOOMBERG 7 NOV
HOSPITALS AND EVACUATION

As of November 2, most local hospitals in the Bangkok Metropolitan Area are operating as normal:

- Bangkok Hospital – operating as normal
- Bangkok Christian Hospital - operating as normal
- Bangkok Mission Hospital - operating as normal
- BNH Hospital – operating as normal
- Bumrungrad Hospital - recommends patients to postpone appointments and treatment for non-urgent conditions until after November 6. Please see their website for details.
- Central General Hospital - operating as normal
- Paolo Memorial Hospital - operating as normal
- Samitivej Sukhumvit - operating as normal
- Samitivej Srinakarin – operating as normal

- In case of an emergency, the Royal Thai Air Force plans to use C-130 planes to transfer intensive care patients to the following provinces: Nakhon Pathom, Pethburi, Surat Thani, Phitsanulok, Chiang Mai, Khon Kaen, Nakhon Rathsima, Udon Thani, Ubol Ratchtani. Long term patients will be transferred by land to adjacent provinces.

NOTES:

- Hospitals and clinics in minimally impacted provinces should be prepared to receive patients from other facilities damaged from flooding.
- Hospitals and clinics in impacted areas should be prepared to evacuate patients as well as to receive patients from impacted facilities.

SOURCE: US EMBASSY - THAILAND
HEALTH WARNINGS: Disease is becoming a major concern due to the spread of contaminated floodwaters and uncollected garbage. Warnings have been issued also against waterborne diseases, particularly those transmitted from animals to humans, and food poisoning. (The Nation)

INFECTIOUS DISEASE:
- No epidemics have been reported so far. Ministry of Public Health (MOPH) officials continue to monitor hygiene at evacuation centers.
- As many as 200 new cases of diarrhea are being reported daily, along with a total of ~100,000 fungal infections and widespread infections from cuts (Ministry of Health).
- Other illnesses, including the flu, are appearing in evacuation centers, which now house some 100,000 people at 160 locations and are likely to be occupied for weeks.
- The MOPH is also closely monitoring several central provinces where the floodwaters are subsiding, including Nakhon Sawan, Chai Nat, Sing Buri, and Ayutthaya. The ministry is watching these provinces for outbreaks of water-related illnesses such as leptospirosis, dengue fever, and severe diarrhea.
- At least two people have died from leptospirosis, a bacterial infection spread through rodent urine.
- There has been at least one case of cholera has already been confirmed in Bangkok’s Prawet district.
- The risk of other disease outbreaks is expected to rise in the coming weeks as floodwaters recede, leaving behind pools of standing water, in which disease-carrying mosquitoes breed.
- Managing the spread of disease is particularly hard given the number of people who cannot avoid wading through polluted waters. Despite warnings from parents and health officials, children frequently play in the waters.

ELECTROCUTION: At least 36 deaths from electrocutions have been reported. Victims were unplugging refrigerators, charging their mobile phones, connecting water pumps or performing other tasks in places where power sources had been inundated.

BLOOD SUPPLY:
- The national blood center has been facing severe supply shortages. The center is struggling to cope with a halving of blood donations (from an average of 1,500 units/day, to only about 700 units /day ).
- The spread of floods, which now reach residential areas in outer Bangkok, has also led to a shortage of nurses and staff at the national blood center located on Henri Dunant Road.
- The shortage is exacerbated because many of the potential donors in Bangkok have sought shelter outside the city.
- Patients suffering from blood diseases such as thalassemias and leukemias, particularly children, are affected the worst because they were still hospitalized in the city when the floodwaters rose. Trauma patients and those on life support were transferred to hospitals in other provinces, where shortages may be less severe.

SOURCES: WALL STREET JOURNAL | THE NATION | BANGKOK POST | THAI RED CROSS
MENTAL HEALTH:

- The prolonged flooding poses a mental health risk for a large population of displaced and affected Thai residents. The scope of this problem is likely to outpace the availability of medical professionals to handle it.
- High levels of stress and anxiety are epidemic among people displaced by the floods. 107,101 persons have reported or been diagnosed with stress, 6,214 with depression, 878 at risk of committing suicide and 1,356 persons now under close watch by health officials.
- The Department of Mental Health has been assigned to continue monitoring for new mental illness cases, and to outline a rehabilitation plan to prevent the most severe outcomes, such as suicide.
- The Suan Prung and Nakhon Sawan Chittawet Hospitals will care for people in the North of Thailand while those in the central region can seek medical attention at Si Thanya and the Department of Mental Health. Psychologists from both the government and private sectors will be recruited on the voluntary basis to help flood victims with high stress level.
- The Dept. of Mental Health has opened two hotlines (1667/1323), staffed by medical teams from Srithanya Hospital. Assistance is also available at 02-526-3342 and 02-439-0392.

NOTES:
- Natural disasters, such as floods, can lead to prolonged emotional and physical stress. Physical and emotional symptoms of stress are likely to continue even as the water eventually recedes.
- Exhaustion, fear, anger, disillusionment, cynicism, and depression are common. These responses are normal and appropriate in the context of significant loss (a home, a farm, a business, a loved one).
- The public health focus is on preventing the most severe outcomes, and planning for recovery.
- Source: “When Crisis Becomes Chronic” by Sean Brotherson

ANIMALS AND VETERINARY MEDICINE:

- Increased incidence of snake bites since the flooding has prompted the MOPH and public hospitals to stockpile 3,500 doses of anti-snakebite serum. A national hotline (1362) has been set up to report crocodiles and other dangerous animals in flooded areas.
- One million chickens were reported dead earlier (19 Oct.). The MOPH is monitoring for outbreaks of disease from dead animals.
- Many displaced residents are bringing pets and working animals along in the evacuation as they leave the city but many animals are left behind to fend on their own. Efforts are being made to rescue these animals.

NOTES:
- Immediate health and medical needs are for life-sustaining resources (medications, equipment, etc.), as well as for mental health monitoring and assistance.
- Widespread outbreaks of infectious disease are beginning to show signs of emerging and healthcare providers should remain vigilant.

The Natural Resources and Environment Ministry's Pollution Control Department (PCD) has checked the water at 149 locations in all of the flooded provinces.

Results of testing of water for public use:
- 24% tested ‘poor’
- 32% tested ‘fair’
- 21% tested ‘good’

The PCD surveyed groundwater in 18 locations and found that 6% was of ‘poor’ quality, 11% was ‘fair’, and 6% was of ‘good’ quality.

The quality of water in the Chao Phraya River was relatively poor, with dissolved oxygen at only 1.3 mg/L.

The Pathum Thani Provincial Natural Resources and Environment Office yesterday distributed 60,000 Dasta Balls and 20,000 bottles of EM (effective micro-organisms) to Pathum Thani's administrators, to be used for wastewater treatment in flooded areas of the province. The Soi Jai Ua area up to the Chakri Bongkot Royal Residence will be the first flooded area in which the water treatment systems will be used.

Meanwhile, the FROC is preparing to hand out 1 ton of EM powder with the help of the Government Pharmaceutical Organization (GPO) to be used in contaminated floodwaters. The GPO plans to produce another 5 tons of the powder.

Although the EM balls are popular and supported by many charitable groups, some Thai experts have said that their effectiveness has been overstated. This means of water purification is also said to work best when in combination when a liquid disinfectant is sprayed on the surface of the floodwater.

Baan Aree, a dharma sanctuary and wellness center on Soi Aree 1 off Phaholyothin Road, is providing a much-needed boost for the spirits by inviting people to spend their time producing about 5,000 EM (effective micro-organism) mud balls every day to help disinfect contaminated floodwater. SOURCE: THE NATION 6 NOV 2011

BANGKOK:
- The floodwaters that have inundated northern parts of Bangkok and surrounding areas contain human waste, animal carcasses and other sources of disease.
- In many locations in Bangkok such as Bang Phlat the water was also contaminated with oil and other industrial pollutants.
- The Bangkok water supply is being monitored for lead, cadmium, zinc, copper, carcinogens, and E. coli bacteria.

SOURCES: THE NATION 8 NOV 2011
• According to the Bangkok municipal government, a total of 436 shelters had been set up in schools as of Nov. 4, but 23 were forced to close after being flooded.

• The authorities have set up evacuation shelters for hundreds of thousands of evacuees from Bangkok in the provinces of Kanchanaburi, Suphan Buri, Ratchaburi, Phetchaburi and Chonburi.

• More than 10,000 refugees from the Rangsit and Don Muang International Airport evacuation centers - which recently succumbed to flooding themselves - began arriving in Chonburi last week. For many, it was their second relocation since the flood crisis moved into the Bangkok metropolitan region last month.

• About 8,000 evacuees are being split equally between the Institute of Physical Education’s Chonburi Campus and Chonburi Sports Academy. Groups of 1,000 flood victims each also will go to the Chonburi Ruam Jai Sala and U-Tapao Temple; about 2,000 will be housed at the Khao Kheow Open Zoo’s Boy Scout Camp in Sriracha; and groups of 200-500 will be dispatched to Khao Bang Thrai Temple, the Institute for Skill Development’s Region 3 campus, the Provincial Police Training Academy, and the Chonburi Community Development and Learning Center.

• Approximately 113,000 people have sought shelter in evacuation centers countrywide.

NOTE: Continued flooding is placing stress on the shelter system and the numbers seeking shelter is expected to increase.

Sources: PATTAYA MAIL
AIRPORTS:
- Suvarnabhumi Airport is operating as normal. Domestic flights are operating normally between Suvarnabhumi Airport and all other airports in Thailand.
- Don Mueng airport is closed until further notice due to flooding.

EXPRESSWAY AUTHORITY OF THAILAND:
The EXAT extended expressway fare exemption for 3 routes, namely
- Kanchanaphisek Express Way (Bang Phli-Suksawas)
- Buraphawithi Express Way and
- Chalongraj Express Way, starting from 00.01 a.m. of 23 October 2011 until 24.00 p.m.

PIERS / PORTS: Boats in Chao Phraya River are suspended.

BUSSES:
- Northeast Route (In-Out bound) starts from Bangkok Bus Terminal (Chatuchak) – Sri Ratch Express Way – Motor ways pass Suvarnabhumi Airport – Bang Nam Priew District,
- Chacheongsao Province take highway route 304 - Chacheongsao Province - Panomsarakham District,
- Chacheongsao Province – take highway route 319 – Prachin Buri Province – Pak Plee District, Nakhon Nayok Province take highway 33 - Ban Na District
- Nakhon Nayok Province – Wihan Dang,
- Saraburi Province – Huay Kamin
- – take highway route 1 – Saraburi Province and takes the regular roads or starts from Bangkok Bus Terminal (Chatuchak) – Sri Ratch Express Way

STATE RAILWAY OF THAILAND 12 routes affected from floods as the followings:
- Bang Khane – Laksi
- Laksi – Dong Mueang
- Don Mueang – Rangsit
- Rangsit – Chiang Rak
- Chiang Rak - Chiang Rak Noi
- Ban Po – Ayutthaya
- Ayutthaya – Ban Ma
- Bang Sue Junction – Bang Bam Ru
- Taling Chan Junction – Sala Thammasop
- Salaya – Wat Suwan
- Wat Suwan – Ngew Rai
- Nong Pla Duk Junction – Suphan Buri

For more information, contact 24 hr. Hotline 1490.
The following entrance/exits are closed temporarily.

- Bang Sue station entrance - exit 1.
- Kamphaeng Phet station. Entrance - Exit 3.
- Chatuchak Park stations. Entrance - an entrance, exit - Exit 3, the common stairs. Entrance - Exit 4 and the elevator entrance.
- Station Rd. Entry - the No. 1 and 2, and the elevator entrance, exit 4.
- Lat Station. Entry - the No. 1 and the entrance - exit 2.
- Ratchadapisek station. Entry - the No. 1 and the entrance - exit 4.
- Sutthisan station. Entrance - exit and entrance at 2 - to 4.
- Huay Kwang station. Entrance - exit and entrance at 3 - to 4.
- Thailand Cultural Centre Station. Entrance - Exit 3.
- Rama 9 station entrance - are the steps 1 and 2 plain. And entrance - exit 3 and exit the elevator entrance.
- Phetchaburi stations. Entry - the No. 2 elevator entrance and exit 2.
- Sukhumvit Station. Entrances - one off the elevator at the entrance and exit.
- Station Sirikit National Convention Center. Entrance - Exit 2 and 4 and the elevator entrance into that one.
- Station Road entrance - exit 2 and the elevator entrance, exit 2.
- Station Lumpini Entrance - Exit 3, and elevator entrance, exit 3.
- Silom station entrance - an entrance into the - into the second side of the stairs plain The elevator entrance at the 1.
- Sam Yan station entrance - the No. 2 elevator entrance and exit 2.
- Hua station. Entrance - Exit 2 and 4 and the elevator entrance, exit 2.

Flood protection wall have been built around the entrances to the following the station with space for passengers to walk in - or out.

- Bang Sue station entrance - exit 2.
- Kamphaeng Phet station. Entry - the No. 1 and 2.
- Chatuchak Park stations. Entrance - The Entrance 2 and - 3 out of the elevator
- Station Rd. Entrance - Exit 3, 4 and 5.
- Lat Station. Entrance - Exit 3 and 4.
- Ratchadapisek station. Entrance - Exit 2 and 3.
- Sutthisan station. Entry - the No. 1 and 3.
- Huay Kwang station. Entry - the No. 1 and 2.
- Thailand Cultural Centre Station. Entrance - Exit 1, 2 and 4.
- Rama 9 station entrances - one off the elevator and entrance - the No. 2 bank elevator
- Phetchaburi stations. Entry - the No. 1 and 3.
- Sukhumvit Station. Entrance - Exit 2 and 3.
- Station Sirikit National Convention Center. Entry - the No. 1 and 3.
- Station Road entrance - exit 1.
- Station Lumpini entrance - exit 1 and 2.
- Silom Station Entrance - Exit 2.
- One of three central entrance - exit 1.
- Hua station. Entry - the No. 1 and 3

For more information, please see the MRT website.
ROAD CLOSURES

According to THAILAND TOURISM the following roads in and around Bangkok should be avoided as some sections are closed due to flooding. Visitors should use alternate routes:

In Northern Bangkok, the roads closed are:

1. Viphavadi Rangsit Road – close till Ladprao Intersection
2. Ratchadaphisek Road – from Ratchada-Ladprao Intersection to Bangsue bridge (ChaoPhrayaPark Hotel)
3. Ladprao Road – from Ladprao Intersection to Ladprao soi 45
4. Phaholyothin Road – close till Ladprao Intersection
5. Prasertmanukij Road(Kaset Nawamin) – from Kaset Intersection to Ladprakao Intersection
6. Nawamin Road – from Ramindra KM 8 intersection to Nawamin soi 63
7. Ramindra Road – from Bangkhen Circle to KM.5 (under Ramindra-Ajnarong expressway)
8. Chaengwattana Road – from Bang Khen Circle to Klongprapa intersection
9. Ngamwongwan Road – from Pongpet Intersection to Kaset Intersection
10. Phrayasuean Road
11. Terdrachan Road
12. Chaengwattana Soi 5
13. Chang Akat Uthit Road
14. Kamphaengphet 6 Road (Local Road) - from Muang Eak Village to Wat Samean Naree
15. Songprapha Rd (both sides) from Srisamarn Intersection
16. Cherdvuthakat Rd (both sides)
17. Kosoom Ruamjai Rd
18. Dechatungka Rd
19. Veruvanaram Rd (both sides)
20. Changwattana 14
21. Liab Khlong Song Rd (both sides) from Saphan Poon Intersection to Intersection in front of Royal Thai Airforce’s unit
22. Chantarubeka Rd (both sides) from Navy Academy to Chatarubeka Intersection
23. Watcharapon Road (both sides)– from Permsin elevated road to Watcharapon Intersection
24. Permsin Road (Phaholyothin 54/1 – Sukhaphiban 5)
25. Sukhaphiban 5 Road

In West Bangkok, the roads closed are:

1. Petchakasem Road – from Buddhamondhol Sai 4 to Ratchapruk elevated Road
2. Kanchanaphisek Road – from Mahasawad Bridge to Klong Bang Pai
3. Charansanitwong – from Bangkhunten Intersection to Rama 7 Bridge
4. Ratchaphruet Road – from Mahasawad Bridge to Petchakasem elevated Road
5. Sirindhorn Road – from Bang Phlat to Sirindhorn Interchange
6. Pinklao Road – from Pinklao bridge to Borom Raja Chonnanee Intersection
7. Arun Amarin Road – from Arun Amarin Intersection to Siriraj Hospital Intersection
8. Borom Raja Chonnanee Rd - from Pinklao Bridge Sirindhorn elevated road
9. Borom Raja Chonnanee Rd (Buddhamondhol area) - from Buddhamondhol 4 Intersection to Ratchapruk Road
10. Suan Phak road - (the Kanchana intersection to Saphan Kham Thang Rot Fai)
11. Bangramad Road – from Kanjana Road to Ratchapruk elevated Road
12. Thaweewattana – from Thaweew Wattana canals to Kanchanaphisek elevated Road

• With some sections of Phetkasem and Boromratchoonnanee roads impassable due to high water levels, Rama II is the only lifeline available for motorists wanting to travel to the South or resort areas in the lower central provinces.
• Officials had decided not to build barriers to stop water moving towards the road and will let it flow over it and continue to the Gulf of Thailand.
• Transport Minister Sukampol Suwannathat said Route 340 from Taling Chan to Bang Bua Thong would be preserved as the main road to the South if flooding of Rama II Road cannot be prevented.

SOURCE: BANGKOK POST 5 NOV 2011
According the **US EMBASSY**, as of **7 NOV 2011**, the following roads should be avoided as some sections are closed due to flooding. Visitors should use alternate routes:

### Ayutthaya:
- Highway 1 Pratunam Pra in – Wang Noi – Nong Kae
- Highway 32 Bang Pa In – Nakorn Luang, Nakorn Luang – Ang Thong
- Highway 308 Bang Lane – Bang Pa In
- Highway 309 Wang Noi – Ayutthaya
- Highway 329 Bang Pra Han – Supanburi
- Highway 347 Bang Pa In – Chao Pluk, Chao Pluk – Bang Pra Han
- Highway 352 Wangnoi – Nong Kae elevated road
- Highway 356 Ban Wah – Pak Kran
- Highway 3063 intersection to Nakorn Luang district
- Highway 3263 Ayutthaya – Ban Sali route to the city center
- Highway 3267 Ang Thong – Ayutthaya
- Highway 3412 Bang Ban – Pak Hai
- Highway 3454 Pak Hai – Sena, Pho Thong – Na Kok
- Highway 3196 Maharaj – Ban Praek
- Highway 3412 Bang Ban – Pak Hai Road
- Highway 3467 Nakorn Luang – Tar Reur
- Highway 3469 Ayutthaya – Bang Pa In
- Highway 3477 Bang Pa In – Ayutthaya

### Nontaburi:
- Highway 9 Bang Bua Thong – Prathum Than
- Highway 340 Bang Bua Thong – Lad Bua Luan
- Highway 345 Nontaburi – Bang Bua Thong bridge
- Highway 3215 Bang Kruey – Ratniyom, Bang Kruey – Si Noi

### Phichit:
- Route to Chao Mae Tuptim Shrine and Wat Thalo, Amphoe Thalo
- Route to Nakhon Chai Baworn Forest Park
- Route to Wat Puttha Ket Mongkol
- Highway 111 Sak Lek – Phichit
- Highway 113 Bang Mun Nak – Phichit
- Highway 1067 Bang Mun Nak – Pho Talay
- Highway 1068 Wang Jik – Pai Tah Pho
- Highway 1118 Taphan Hin – Bang Mun Nak
- Highway 1221 Phichit – Phitsanulok
- Highway 1289 Wang Sam Rong – Bang Lai
- Highway 1304 Hua Dong – Yang Sam Ton

### Pitsanulok:
- Highway 1275 Tah Chang – Phrom Piram
- Highway 1310 Tab Yay Chiang - Phrom Piram

### Uthai Thani:
- All roads on Ko The Pho
- Highway 333 to Uthai Thani
- Intersection in front of Uthai Thani City Hall
- Road from Amphoe Krok Phra, Nakhon Sawan to Uthai Thani
- Road in front of Uthai Thani Stadium
- Ferry service between Chai Nat and Uthai Thani are suspended

### Kampaengphet:
- Highway 1280 Tung Mahachai – La Han

### Ang Thong:
- Highway 3064 Ang Thong – Po Thong

### Chai Nat:
- The Chao Phraya River Crossing Bridge, in front of Wat Thammamun Worawihan - Wat Pak Khlong Makham Thao
- Chai Nat – Manorom Road
- Some parts of Highway 3183
- Some parts of Highway 3213
- The weir on Chao Phraya Dam Road
- Highway 1 Chai Nat – Tar Klee, the route to Chai Nat is closed; the route from Highway 32, also known as The Asian Highway (AH-2) to Tar Klee remains open

### Lamphun:
- Highway 106 Amphoe Li - Amphoe Ban Hong, in Lamphun province

### Lop Buri:
- Highway 311 Lop Buri Bypass road from 8 km to 19 km
- Lop Buri – Sing Buri road, km 159 – 166
- Highway 3196 Lop Buri – Pho Kao Ton Road, km 76-94

### Saraburi:
- Highway 1 (Phahonyothin Road), Km 107, Amnuay Songkram Bridge is closed
- Highway 3020 Phra Putthabat – Nong Don, Km 6 to Km 7
- Highway 3034 Na Phra Lan–Cement plant at Ban Mor Road, Km14 to Km16
- Highway 3224 Kaeng Khoi – Salang Phan, Km 9 to Km 10

### Sing Buri:
- Highway 11 Inburi – Tak Fah
- Highway 311 Sing Buri – Chai Nat
- Highway 3028 Bang Nga – Ban Mee
- Highway 3030 Singburi – Bang Ra Chan
- Highway 3033 Bang Nga – Phrom Buri

### Suphan Buri:
- Highway 340 Sa Lee – Suphan Buri
- Highway 329 Ang Thong – Suphan Buri
- Highway 3057 Wat Pra Sri Rattana Mahatart – Pho Phraya

### Nongbualumphu:
- Highway 2146 Noan Suang – Ubonrat Dam

### Mahasarakham:
- Highway 2391 Ku Thong – Ban Keun

### Nakhon Sawan:
- In Buri – Tak Fa Road
- Nakhon Sawan – Kam Pheang Phet Bypass
- Road from Amphoe Krok Phra in Nakhon Sawan to Uthai Thani
- Road from Amphoe Banphot Phisai to Hu Khwang
- Road from Theerachat Market to Amphoe Pho Talay in Phichi province and to Amphoe Khao Woralaksaburi in Kamphaeng Phet province
- Highway 117 Nakhon Sawan – Phichit – Phitsanulok
- Highway 32, also known as The Asian Highway (AH-2), Km 344 closed for 400 meters
- Route to Amphoe Chum Saeng, Nakhon Sawan province
- Route to Mae Wong National Park
- Route to Wat Pa Siri Wattana Wisut
- Tar Klee – Ban Mi Road
CONTACT NUMBERS AND LINKS

NATIONAL DISASTER RESPONSE PLAN:

COUNTRY/NATIONAL LEVEL RESOURCE:
www.disaster.go.th - (THAI/ENGLISH)
http://thailand.prd.go.th/ - The Gov’t Public Relations Department
http://www.whothailand.org/EN/index.htm
http://www.unicef.org/thailand/media_17499.html -UNICEF
http://thaiandtourismupdate.com/ -Thailand media release
http://www.redcross.or.th/home - Thai Red Cross
http://flooding.gistda.or.th/ - Thailand Flood Monitoring System
http://thailand.prd.go.th/view_around_thailand.php?id=5897

- Useful contact numbers
  www.thaiflood.com - (THAI)
  www.thaiandtourismupdate.com - (THAI/ENGLISH)
  Map of flooded roads indicating which are passable and which are not. (THAI)
  http://maintenance.doh.go.th/test.htm
- Basic geographic information about dams in Thailand (ENGLISH)
  http://www.gmap3d.com/?&DG=DAM&c=th
- Map of key water infrastructure in Bangkok
- Map showing expected flow of water around Bangkok (ENGLISH)
  http://www.nationmultimedia.com/home/admin/specials/sound/flood/le/Oct-12-Flood.jpg
- GISTDA Thailand Flood Monitoring System – map of affected sub-districts, satellite images, as well as useful GIS data (SHP, KMZ, WMS). (Mostly THAI)
  http://flood.gistda.or.th/ - Bangkok Department of Drainage and Sewerage – Canal monitoring system.
  Live updates about water levels in the klongs in Bangkok (THAI)
  http://dds.bangkok.go.th/canal/PageGraph.aspx
- Demographic data (Total Pop, Male, Female, Households) from the NS per district – 2010 (THAI)
  http://www.nirapai.com/1784thai/index.php?option=com_content &task=category&sectionid=6&Id=20&Itemid=45 - List of daily updates from DDPM (THAI)

BANGKOK-RELATED:
http://bangkok.usembassy.gov/
http://www.unocha.org/search/node/bangkok
http://www.au.edu/ - Assumption University
http://tunein.com/radio/Krugn-Thep-(Bangkok)-r101115/ - Radio stations with online listening
http://dps.bangkok.go.th/Radar/radar.htm - Live Doppler radar image of Bangkok showing rainfall (Mostly THAI)

INTERNATIONAL/REGIONAL:
http://reliefweb.int/ - ReliefWeb Headlines
http://www.coe-dmha.org/Default.aspx Center for Excellence in Disaster Management and Humanitarian Assistance is a Department of Defense organization – Center For Excellence Disaster Management
http://ffw.mrcmekong.org/ - Mekong River Commission
http://www.asean.org/8713.htm - ASEAN (Association of South East Asian Nations) Disaster Management
http://aseandr.net/KnowledgeBase/DRRTopics/Hazards/Flood.aspx - ASEM National Disaster Resilience Portal (flooding)
http://sedac.ciesin.columbia.edu/ - Data on elevation levels and coastal flooding risks
http://www.searo.who.int/LinkFiles/Thailand_3-10-11.pdf - Emergency and Humanitarian Action (EHA) Unit World Health Organization (WHO) Regional Office for South East Asia (SEARO) Oct 3 situation report

US RESPONSE/RESOURCE:
http://www.state.gov/
http://www.defense.gov/

NEWS:
http://www.bangkokpost.com/
http://tatnews.org/ - The Tourism Authority
http://www.nationmultimedia.com/ - The Nation

OTHERS:
http://blog.google.org/search/label/Crisis20Response - Blog of the Philanthropic Arm of Google

Contact Telephone Numbers:
Government Call Center 1111 ext 5
Bangkok Metropolitan Administration (BMA) Hotline 1555
BMA’s Flood Response Centre 02-248-5115
Thai Tourist Police 1155
Disaster Prevention and Mitigation Department Hotline 1784
Royal Irrigation Department Hotline (water situation update) 1460
Emergency Medical Institute Hotline 1669
Suvarnabhumi Call Center 02-132-1888
Suvarnabhumi Airport 02-535-1111
State Railway of Thailand Hotline 1690
Transport Co Hotline (inter-provincial bus service) 1490
English radio in Bangkok:
http://bangkok.ameliotv.com/ - English AM and FM radio in Bangkok
http://www.thaiandtourismupdate.com/ - Thailand media release
http://www.redcross.or.th/home - Thai Red Cross

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  http://www.nirapai.com/1784thai/index.php?option=com_content &task=category&sectionid=6&Id=20&Itemid=45 - List of daily updates from DDPM (THAI)

Information Source: Thai Government Public Relations Office | US Embassy