Philippines: Tropical Storm Parma (Pepeng) Areas at Risk

Map compiled by WFP Emergency Preparedness Branch (OMEP) 03.10.09

WFP

Transport Network

- Primary All-Weather Roads
- Secondary Roads
- Tertiary Roads/Tracks
- Railroads
- Rivers

Airfields

- Runway Length in Feet
- Unknown
- 1,050
- 1,051 - 2,500
- 2,501 - 5,000
- 5,001 - 10,000
- 10,001 - 16,500

Settlements

- National Capital
- Major Centres
- Large Cities
- Towns
- Villages

Areas of Concern

- **Flood-Prone Areas - Historical inundation limits based on satellite imagery analysis.**
- **Densely Populated Areas**

Landslide Prone Areas

- **Hazard**
- **Severe Hazard**

Based on global landslide and avalanche hazards developed by NGI. The map is based on a range of data including slope, soil, soil moisture conditions, precipitation, seismicity, and temperature. Also incorporated into this data set is Shuttle Radar Topography Mission (SRTM) elevation data. Landslides rated by relative frequency of hazard posed by landslide or avalanche. Source: NGI, CHRR, CIESIN.

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Compiled by WFP OMEP (Situation Room) 03.10.09. Grid: Lat/Long, Spheroid WGS 1984. For info please contact Emergency.Preparedness@wfp.org

10/3/2009 12:00 AM

Areas currently affected by Cyclone Ketsana (Ondoy)

Area enlarged

7 Day Precipitation Forecast (as of 03.10.09)

- 0 - 5 mm
- 5 - 10
- 10 - 25
- 25 - 50
- 50 - 100
- 100 - 150
- 150 - 300
- 300 - 450
- 450 - 600
- 600 - 1,400

Based on the NOAA GFS meteorological model. Data: Courtesy of NOAA NWS CPC. Units: Millimeters (model forecasts start at 00 GMT).

PARMA (Pepeng) Storm Track

10/3/2009 12:00 PM

10/3/2009 6:00 AM

50 km reference zone from storm track

Cyclone Classification

Saffir-Simpson Scale

- Minimal
- Moderate
- Extensive
- Extreme
- Catastrophic

- **Tropical Storm 39 to 73 mph**
- **Category 1 Cyclone: 74 to 95 mph, storm surge 4-5 feet above normal**
- **Category 2 Moderate Cyclone : 96 to 110 mph, storm surge 6-8 feet above normal**
- **Category 3 Strong Cyclone: 111 to 130 mph, storm surge 9-12 feet above normal**
- **Category 4 Very Strong Cyclone: 131to 155 mph, storm surge 13-18 feet above normal**
- **Category 5 Devastating Cyclone: > 155 mph, storm surge >18 feet above normal**

0 5 10 20 Kilometers

0 5 10 20 Miles

CORDILLERA ADMINISTRATIVE REGION (CAR)

REGION I (ILOCOS REGION)

REGION II (CAGAYAN VALLEY)

REGION III (CENTRAL LUZON)

ILOCOS NORTE

ILOCOS SUR

MOUNTAIN PROVINCE

IFUGAO

KALINGA

APAYAO

CAGAYAN

ISABELA

QUIRINO

AURORA

BENGUET

LA UNION

PANGASINAN

NUEVA VIZCAYA

NUEVA ECIJA

PHILIPPINES

Aggao, Claveria, Namuac, Tangatong, Bangui, Pamotolan, Batitgao, Macatel, Filomeno, Buraan, Bangan, Maragnat, Taccuen, Fugu, Bojeador C, Nagubugan, Payac, Adam, Bunot, San Juan, Abulug, Masi, Budbudac, Cabayo, Naguilian, Gabuluan, Tanglagan, Calog, Linao, Zitanga, Pasuquin, Danao, Cabangaran, Alsem, Naguilian, San Isidro, Tumoc, Ducan, Apard, Punta, Balza, Marag, Luna, Bangag, Alilinu, Bacarra, Tabangan, Babayuan, Cullit, Laoag, Malabibit, Lafu, Lal-lo, Binag, Masi, Casicallan, Agora, Papaoar, Maluyo, Magapit, Nanagan, Aputan, Kapinatan, Dibagat, Aripip, Maabayan, Nabannagan, Nabbacayan, Cumao, Capissayan, Paoay, Dingras, Barong, Iamdagan, Solsona, Musimut, Sicalao, Lomismo, Tumedteted, Banna, San Megro, Baduat, Papadog, Paor-Patoc, Tallu, Dalagig, Baggao, Awallan, Lobit, Turod, Camanga, Padpadong, Dagara, Dungao, Dares, Battog, Bolinao, Naglibacan, Balanni, Dabtac, Binacud, Acilip, Tauinin, Santa Cruz, Apayao, Pacac, Macatal, Patro, Cabugao, Paddaoan, Siuan, Niug Norte, Dadda, Gabut, Sulbec, Baybaytin, Lapat, Bulunganag, Cabaruan, Concepcion, Guisit, Band, Lagayan, Acsimao, Tuao, Casinsingan, Barung, Ipil, Santa Barbara, Bauan, Magsingal, Abot, Bacaoc, Apao, Buneg, Aggugaddah, Calay-ab, Cayapa, Mataragan, Solana, Basiing, Lingsat, Bañacao, Paganao, Packed, Gadu, Concong, Bugatay, Vigan, Bangued, Paoa, Tapiun, Tawan, Magaogao, Abbigoy, Tuguegarao, Fuarte, Barbarit, Carsuan, Bugbug, Ba-ay, Galap, Balawag, Nabbotuan, Alibago, Dalupang, Cagutungan, Salldeng, Bazar, Ududiao, Talalang, Malaap, Gobgob, Lingaling, Narvacan, Labaan, Dao-angan, Naganacan, Cabagan, Santa Maria, San Pablo, Lagaosian, Danac, Ableg, Tabuk, San Juan, Aggub, Masipi, Tangagan, Villavicia, Antagan, Malig, Divilican, Matanobong, Tubtubo, Baliga, Caocabayan, Abbuatan, Minanga, Candon Pt, Biqui, Lupac, Supo, Tulgeo, Lubo, Bogui, Balo, Cappa Ibanag, Canapi, Candon, Lidaoan, Belwang, Mainit, Bituagan, Tico, Imbiao, Manaog, Tochey, Bonot, Butiqui, Langigen, Roxas, Kalinga, Pitnor, Upi, Bintacan, Sindon, Callang, Namakalan, Matusalela, Banguero, Naguilian, Yeban, Diabbut, Palanan, Ambabu, Caculucuan, Bontoc, Tamudan, Tolag, Siffu, Barlig, Bagho, Simpa, Vila Fugu, Malalinta, Daliog, Mayoyao, Cauayan, Uguap, Palutan, Dili, Namatingan, Dain, Bauk, Bagnen, Cervantes, Banayan, Uso, Banaao, Amganad, Antatet, Guyabal, Agdeppa, Tibo, Ursuban, Lepanto, Opul, Nagrumboan, Baringin, Tierra Virgen, Taguidin, Luna, Limu, Hungduan, Cundy, Awa, Australia, Amistad, Del Pilar, San Isidro, Amilongan, Tubaday, Lettac, Oscoris, Lubub, Tadli-pugo, Amposungan, Dalimona, Kiangan, Duit, Lingdingay, Buyasan, Tammocalao, Batitio, Dalakip, Tuboc, Bacnotan, Napsong, Nayon, Echague, Loria, San Guillermo, Obobug, Balacbac, Lasitas, Amantoc, Apunan, Malabago, Diadi, Malitao, Dinapigui, Pacpacac, Tinas, Tabaao, Abiang, Kagosit, Bagaen, Aliaugon, Dackel, Sinappii, Arabiat, San Juan, Bimmotobol, Taoang, Dumayup, Lukban, Dalibubun, Linumut, Palintocang, Uddiawan, Ricarte, Saguday, Minuri, Calot, Addalem, Daclig Camp, Masaya, Mapalad, Angcaoay, Topside, Babaddi, Santo Domingo, Palaisan, Duminamad, Uldugan, Palacian, Aringay, Candanglaan, Pitican, Villahermosa, Tavora, Didipio, Agoo, Tabaan, Danglay, Binga Dam, Pingkian, Alloy, Alayan, Rosario, Buebue, Cabolug, Malasin, Siguem, Abbag, Casiguran, Alacan, Labayug, Lilit, Malico, Consuelo, Baliti, Rancheria, Pasaruboy, Pozorrubio, Mangaut, Tauayan, Bateng, Dagupan, Awayan, Maria Evalle, Dakgan, Debutuman Pt, Tayug, Abaca, Umubi, Gadeng, Carranglan, Alupipeu, Rebutunan, Binmaley, Urdaneta, Asingan, San Quintin, Bugallon, Lingayen, Buenlag, Manibog, Carael, Tambacan, Bacnit, Capantolan, Mangas, Panasgasan, Nabaul, Alaminos, Rena Pt, Agno, Tupa, Olanen, Pamaoran, Santiago, Zaragoza, Bani, Anda, Tondol, Bolinao, Tupa, Pilar, Lucero, Baluarte, Dasol, Bario, Ul, Amalbalan, Betogoc, Baruan, Sison, Mabini, Bautista, Laoac, Alcala, Asingan, Rosales, Tayug, Umingan, Pozorrubio, Binalonan, Villasis, Urbiztondo, Mangatarem, Aguilar, Basista, Bautista, Lau