



The Weather Philippines Foundation

Sebastian Glink, Business Unit Manager
UNDP CIRDA Workshop, Kampala 3 March



weather philippines

My Philippines. My Weather.

Who we are

...In 2015, MeteoGroup is a leading full-service, global weather business with:

- Operations in **15** countries
- **450** staff including **150** meteorologists
- Services provided in local languages
- **24/7/365** availability
- **ISO 9001:2008** Multi Site certificate



Extreme Weather



heavy rain



thunderstorms



storms



heatwave



hail

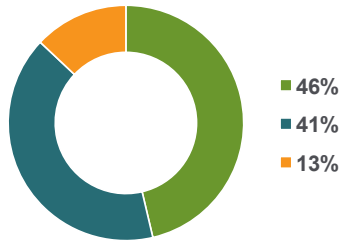


tornadoes

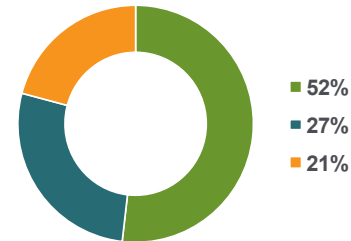
➔ increase of global extreme weather situations, conclusions by IPCC

Meteorological disasters by type of event, 1980-2013

18,200 Loss events

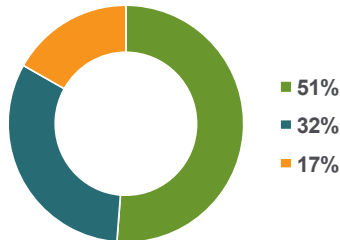


840,000 Fatalities*



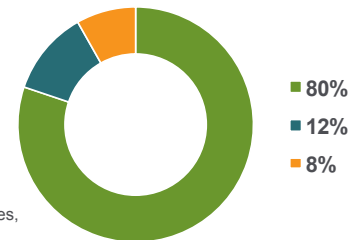
*Number of fatalities without famine.

Overall losses** US\$ 3,200bn



**Losses in 2013 values, adjusted to inflation based on country CPI

Insured losses** US\$ 900bn



**Losses in 2013 values, adjusted to inflation based on country CPI

Meteorological events
(Tropical storm, extratropical storm, convective storm, local storm)

Hydrological events
(Flood, mass movement)

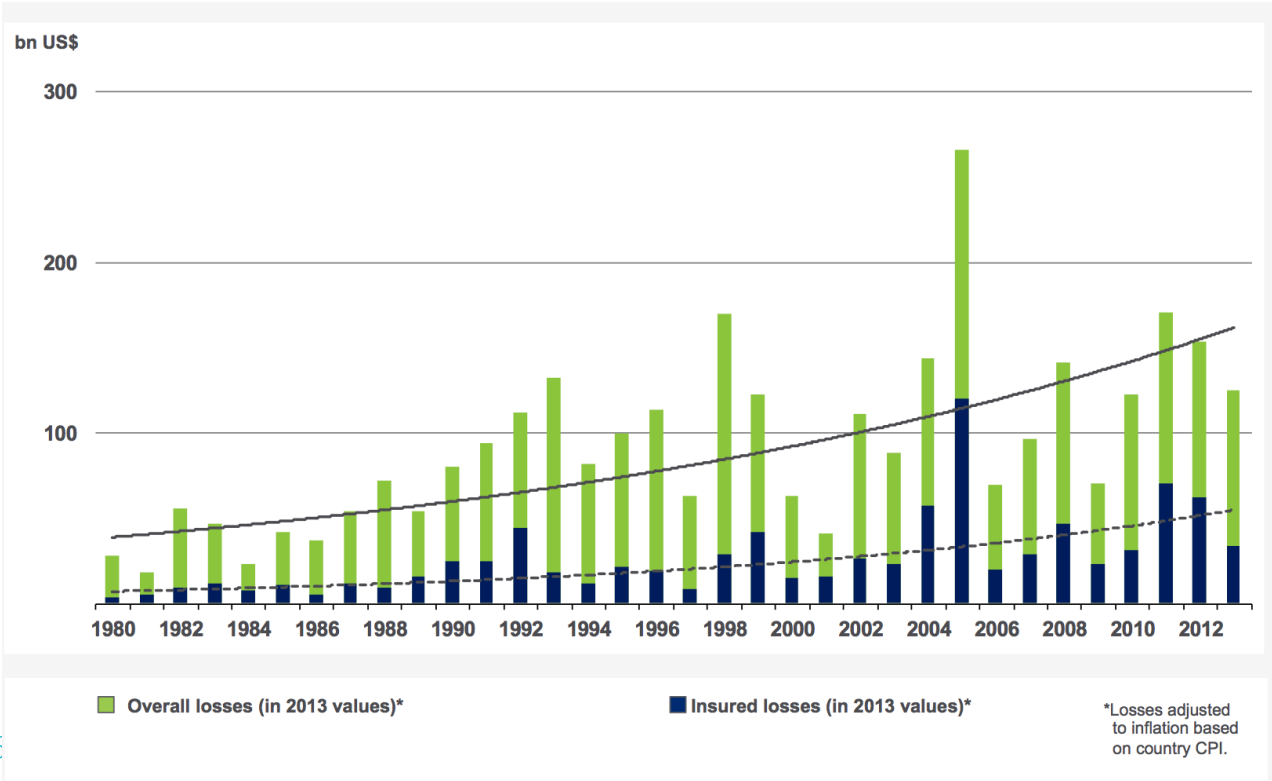
Climatological events
(Extreme temperature, drought, forest fire)

Trend of global meteorological disasters, 1980-2013

NatCatSERVICE

Weather-related loss events worldwide 1980 – 2013

Overall and insured losses



Example: Philippines

- Every year the Philippines are affected by 20-30 tropical storms or typhoons. Heavy rain driven by monsoons brings additional severe weather situations.
- Weather and climate-related disasters cost the Philippines an average of USD 240.7 million a year.*
- Super Typhoon Yolanda 3rd to 11th November 2013
 - peak wind gusts 315 km/h
 - death toll 5260 (official)

*according to a study covering 20 years of disasters (1990-2009), published November 2010 by state-owned think tank Philippine Institute for Development Studies (PIDS)

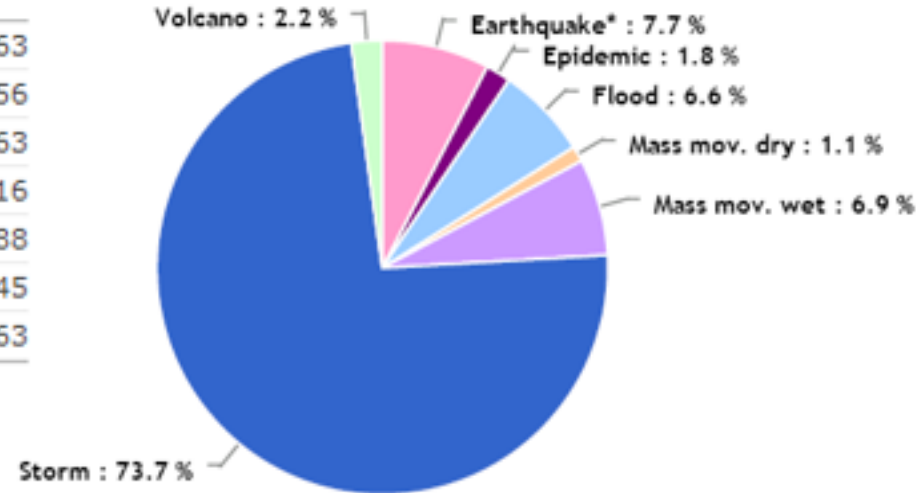


Situation in the Philippines: natural disasters

Natural Disasters from 1980 - 2010

Overview

No of events:	363
No of people killed:	32,956
Average killed per year:	1,063
No of people affected:	116,212,416
Average affected per year:	3,748,788
Economic Damage (US\$ X 1,000):	7,417,145
Economic Damage per year (US\$ X 1,000):	239,263



Data related to human and economic losses from disasters that have occurred between 1980 and 2010.

Source: <http://www.preventionweb.net>

Situation in the Philippines: risks

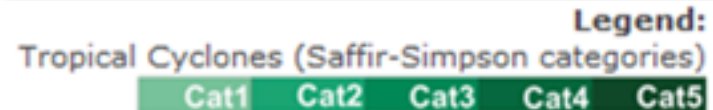
Human Exposure

Modelled number of people present in hazard zones that are thereby subject to potential losses.



Economic Exposure

Modelled amount of GDP (Gross Domestic Product) present in hazard zones that are thereby subject to potential losses.



Source: <http://www.preventionweb.net>

Initial Situation in the Philippines: Meteorology



Before MeteoGroup's project:

- less than 100 of the national weather service's weather stations were online.
- forecasts were only published once per day and for regions instead of specific locations.
- the Philippines have thousands of islands, 800 of them are occupied.

Situation in the Philippines: Meteorology

NEW:

- **Weather.Philippines Foundation, Inc.** is a new public weather services for the Philippines.
- Initial Funding from the Aboitiz Foundation and Union Bank: US\$2.9Million
- The Weather.Philippines Foundation, provided by **MeteoGroup Philippines**, in cooperation with the League of the Provinces of the Philippines, aims to make precise weather forecasts and severe weather warnings available to the public.

aboitiz

UNIONBANK



Partnerships Established

Donors:

PLATINUM. Additional financing for at least 10-years (US\$500K over 10yrs each):



GOLD.

Anvaya Cove, SN Aboitiz Power, Hedcor, Davao Light, Ocean Adventure, Syngenta, etc...

League of Provinces of the Philippines

Installation of 80 Automated Weather Stations (AWS) in Provincial Capitols nationwide



League of Cities of the Philippines

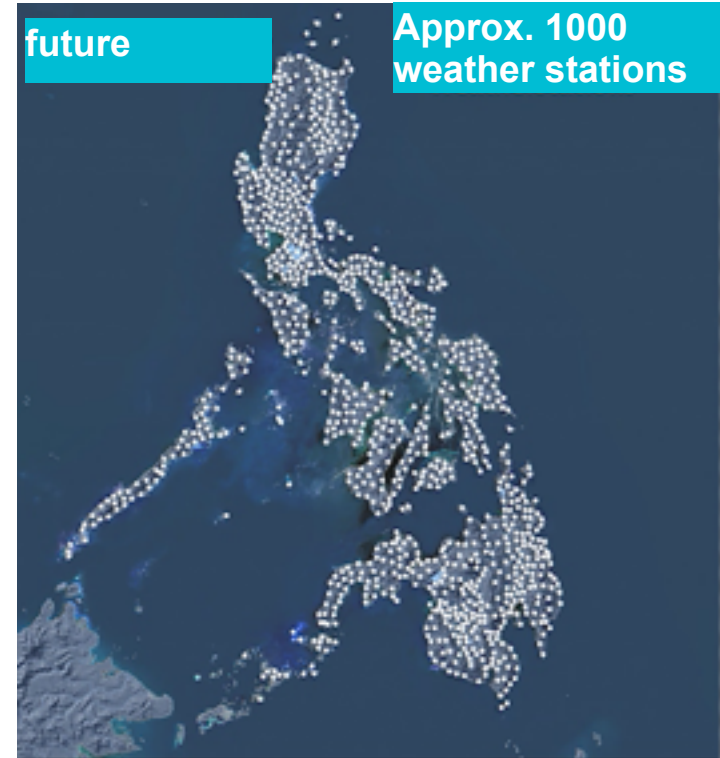
Installation of 130 Automated Weather Stations (AWS) Cities



Weather.Philippines sets up 1000 weather stations

The MeteoGroup Approach:

No reliable forecasts without local data, no local data without local weather stations.



Automated Weather Station (AWS)

Measures:

- Global/Solar Radiation
- Wind Direction / Speed
- Temperature
- Pressure
- Humidity
- Rain/Precipitation

- Solar Powered with Redundant Li-Poly Batteries
- Transmits data every 10-minutes by SMS/GPRS

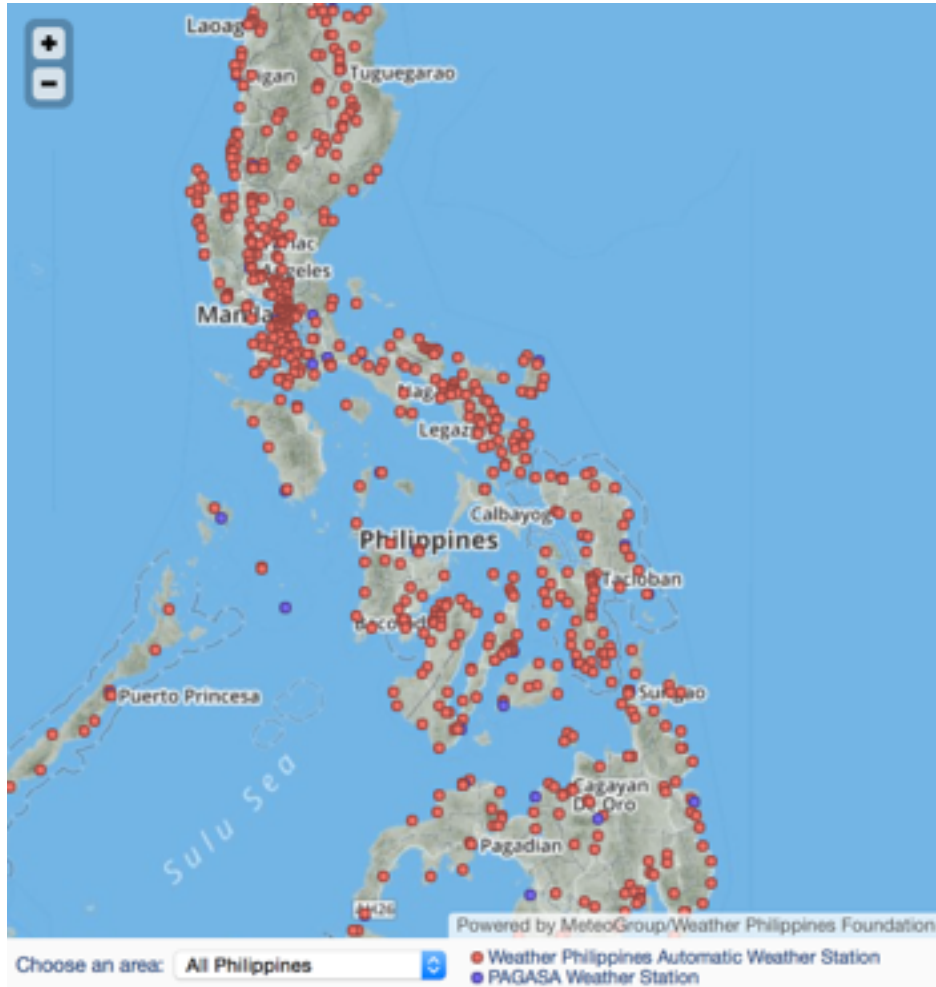


AWS deployment/rollout sessions

More than 800 city risk reduction personnel, environmental officers and city engineers from all over the Philippines were trained on AWS installation



Weather Station Deployment



- Currently approx. 700 AWS deployed
- All provincial capitols covered
- All cities covered
- Other priority Meteorological sites covered

Public weather portal: weather.com.ph

weather philippines | MeteoGroup | UNIONBANK | aboitiz Foundation

Home | Dictionary | News | Weather TV | About | Contact Us | | Search

Weather stations | Weather warnings | Weather movies

Manila (ICTSI)

Current Readings 11:00PM, Sunday
26°C
Rain
Wind(Av) 7km/h
Gusts 20km/h
Humidity 89%

More Details

11PM-02AM	24°C	Rain	0mm	Wind(Av) 4km/h	Gusts 8h 15km/h	Humidity 87%
02AM-05AM	23°C	Rain	0mm	Wind(Av) 4km/h	Humidity 73%	
05AM-08AM	25°C	Rain	0mm	Wind(Av) 2km/h	Gusts 15km/h	Humidity 89%
08AM-11AM	31°C	Rain	0mm	Wind(Av) 18km/h	Humidity 42%	
11AM-02PM	32°C	Rain	0mm	Wind(Av) 18km/h	Gusts 41km/h	Humidity 39%
02PM-05PM	29°C	Rain	0mm	Wind(Av) 15km/h	Humidity 49%	

Platinum sponsors:
NAC
SUMITOMO METAL MINING CO., LTD.
VISTA LAND
SM
LBC We Like To Move it

Follow us on Facebook and Twitter

Gold sponsors:
MOUNTAIN HARD WEAR

News
WeatherPhilippines Daily Graphical Satellite

- everything about the weather
- all free services
- detailed weather forecast for each location
- weather forecast movies
- weather TV
- severe weather warnings
- webcams

Public weather portal: weather.com.ph

Manila (ICTSI)
(Elevation: 18m)
Current readings: 07:00PM, Wednesday, May 21, 2014

30.3°C | Average Wind Speed / Direction: **7 km/h, South**

Sunrise: 05:28AM | Sunset: 06:18PM | Moon Phase: Last

Guage: **11 km/h**
Rain 1h: **0.0 mm**
Relative Humidity: **82%**

Today, May 21, 2014

Time	Condition	Temperature	Rain	Humidity	Dew Point	Wind
08PM-11PM	☁	27°C	Moderate Rain possible 9-7mm	86%	25°C	Mean Wind: 4 km/h, light air from North for gusts see below
11PM-03AM	☁	27°C	No Rain 0mm	85%	24°C	Mean Wind: 3 km/h, light air from North Gusts (9-hour interval): 6 km/h, light breeze
03AM-05AM	☁	25°C	No Rain 0mm	92%	24°C	Mean Wind: 6 km/h, light breeze from East for gusts see below

Thursday, May 22, 2014

Time	Condition	Temperature	Rain	Humidity	Dew Point	Wind
05AM-08AM	☁	29°C	No Rain 0mm	75%	24°C	Mean Wind: 4 km/h, light air from South East Gusts (9-hour interval): 14 km/h, gentle breeze
08AM-11AM	☁	33°C	No Rain 0mm	56%	23°C	Mean Wind: 5 km/h, light air from South for gusts see below
11AM-02PM	☁	34°C	Moderate Rain 0mm	52%	23°C	Mean Wind: 5 km/h, light breeze from South for gusts see below

detailed forecasts:

- 3h resolution
- forecast of all parameters: weather, temperature, humidity, rain, wind
- up to 5 days

Public weather portal: weather.com.ph

The screenshot displays the weather.com.ph website interface. At the top, there are logos for 'weather philippines', 'MeteoGroup', 'UNIONBANK', and 'AboitizPower'. Below the logos is a navigation bar with links for Home, Dictionary, News, Weather TV, Webcams, About, and Contact Us, along with a search box. The main content area is divided into several sections:

- Weather stations:** A map of the Philippines showing wind speed and direction streamlines. Major cities labeled include Manila, Cebu, Puerto Princesa, and Davao. The current time is Wed 17:00 (PHT).
- Manila (ICTSI) Current Readings:** 07:00PM, Wednesday. Temperature: 30°C. Rain: 0.0mm. Wind(Av): 7km/h. Gusts: 11km/h. Humidity: 82%.
- Forecast:**
 - 05PM-11PM: 27°C, Rain 0-7mm, Wind(Av) 4km/h, Humidity 86%.
 - 11PM-02AM: 27°C, Rain 0mm, Wind(Av) 3km/h, Gusts 6h 8km/h, Humidity 85%.
 - 02AM-05AM: 25°C, Rain 0mm, Wind(Av) 6km/h, Humidity 92%.
 - 05AM-08AM: 29°C, Rain 0mm, Wind(Av) 4km/h, Gusts 6h 14km/h, Humidity 75%.
 - 08AM-11AM: 33°C, Rain 0mm, Wind(Av) 5km/h, Humidity 59%.
 - 11AM-02PM: 34°C, Rain 0-6mm, Wind(Av) 9km/h, Gusts 6h 28km/h, Humidity 52%.
- Platinum sponsors:** NAC, SUMITOMO METAL MINING CO., LTD., International Customer Terminal Services, Inc., VISTA LAND, S.M., and LBC.
- Follow us on Facebook and Twitter:** Social media icons for Facebook and Twitter.

- weather forecast movies:
- wind speed and direction as streamlines

Public weather portal: weather.com.ph

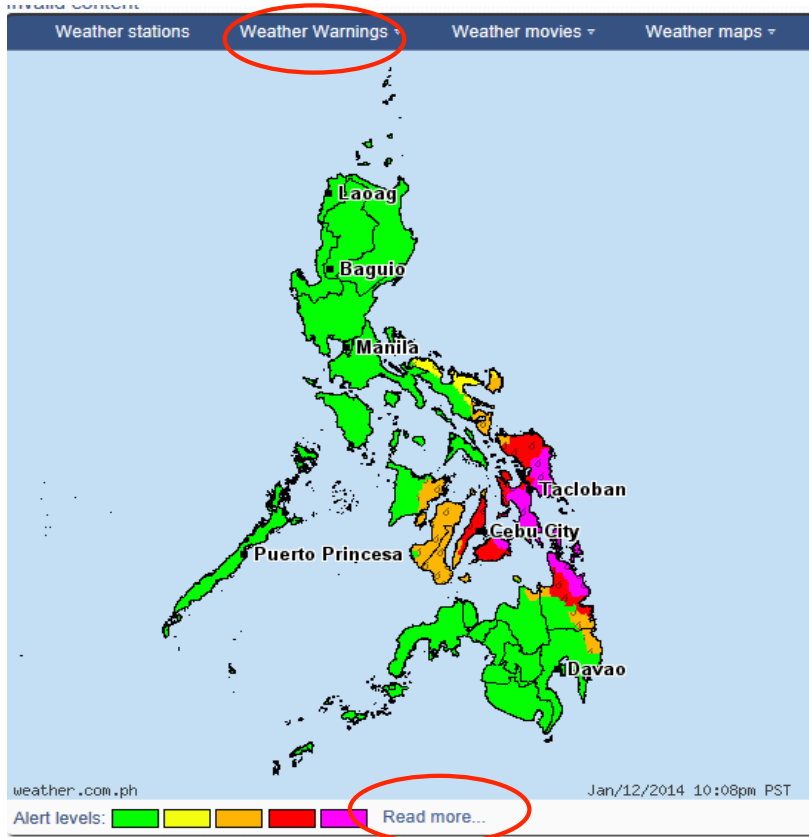
The screenshot displays the weather.com.ph website interface. At the top, there are logos for weather philippines, MeteoGroup, UNIONBANK, and AboitizPower. Below the logos is a navigation bar with links for Home, Dictionary, News, Weather TV, Webcams, About, and Contact Us, along with a search bar. The main content area is divided into several sections:

- Weather stations:** A map of the Philippines showing weather stations. Labels include Manila, Cebu, Puerto Princesa, and Davao. The current time is Wed 17:00 (PHT).
- Manila (ICTSI) Current Readings:** 07:00PM, Wednesday. 30°C. Rain(1h) 0.0mm, Wind(Av) 7km/h, Gusts 11km/h, Humidity 82%.
- Forecast:**
 - 08PM-11PM: 27°C, Rain 0-3mm, Wind(Av) 4km/h, Humidity 86%.
 - 11PM-02AM: 27°C, Rain 0mm, Wind(Av) 3km/h, Gusts 6h 5km/h, Humidity 85%.
 - 02AM-05AM: 25°C, Rain 0mm, Wind(Av) 5km/h, Humidity 92%.
 - 05AM-08AM: 29°C, Rain 0mm, Wind(Av) 4km/h, Gusts 8h 14km/h, Humidity 75%.
 - 08AM-11AM: 33°C, Rain 0mm, Wind(Av) 5km/h, Humidity 59%.
 - 11AM-02PM: 34°C, Rain 0-6mm, Wind(Av) 8km/h, Gusts 8h 28km/h, Humidity 52%.
- Platinum sponsors:** NAC, SUMITOMO METAL MINING CO., LTD., International Container Terminal Services, Inc., VISTA LAND & LIFESCAPES INC., S.M., and LBC (We Like To Move It).
- Follow us on Facebook and Twitter:** Social media icons for Facebook and Twitter.

At the bottom left, there is a video player with a play button and a progress bar. Below the video player, there is a dropdown menu for "Choose an area:" set to "All Philippines" and a legend for "Weather Philippines Automatic Weather Station" and "PAGASA Weather Station".

weather forecast movies:
• rainfall

Severe Weather Warnings



WEATHER SEVERITY MATRIX

	RAIN	WIND	WARNING	ACTIONS TO TAKE
NORMAL			No severe weather warning*	
WEATHER WATCH	 Uncertain	 Uncertain	Severe weather expected but the intensity and/or affected areas are still uncertain. Monitor situation closely.	
MODERATE	 F* 24 hrs: 30-50 mm F* 48 hrs: 60-100 mm	 F* 75-100 kph	Moderate severe weather. Be prepared. Expect impacts on traffic and outdoor activities.	
HEAVY	 F* 24 hrs: 50-100 mm F* 48 hrs: 100-150 mm	 F* 100-130 kph	Severe weather of heavy intensity. Take precautions. Expect heavy traffic and some damage. Consider work suspension.	
EXTREME	 F* 24 hrs: 100 or more F* 48 hrs: 150 or more	 F* 130 kph or more	Extremely severe weather that poses significant risk to life. Take precautionary actions. Expect widespread damage and follow evacuation orders.	

*F = FORECAST

Weather TV with Severe Weather Updates

weather philippines MeteoGroup UNIONBANK AboitizPower

Home Dictionary News Weather TV Welcome About Contact Us

Weather TV

Mr. Typhoon's Severe Weather Update for Wed, Apr 23, 2014

Mr. Typhoon's Severe Weather update for Wed, Apr 23, 2014

Here's the latest Severe Weather Update for Wednesday, April 23, 2014. Hosted by Mr. Typhoon, David Michael V. Padua, Senior Typhoon Specialist of MeteoGroup Philippines and WeatherPhilippines Foundation. Video recorded at 6:50 PM (10:50 GMT).

Platinum sponsors:
NAC
VISTA LAND
SM
LDC We Like To Move It

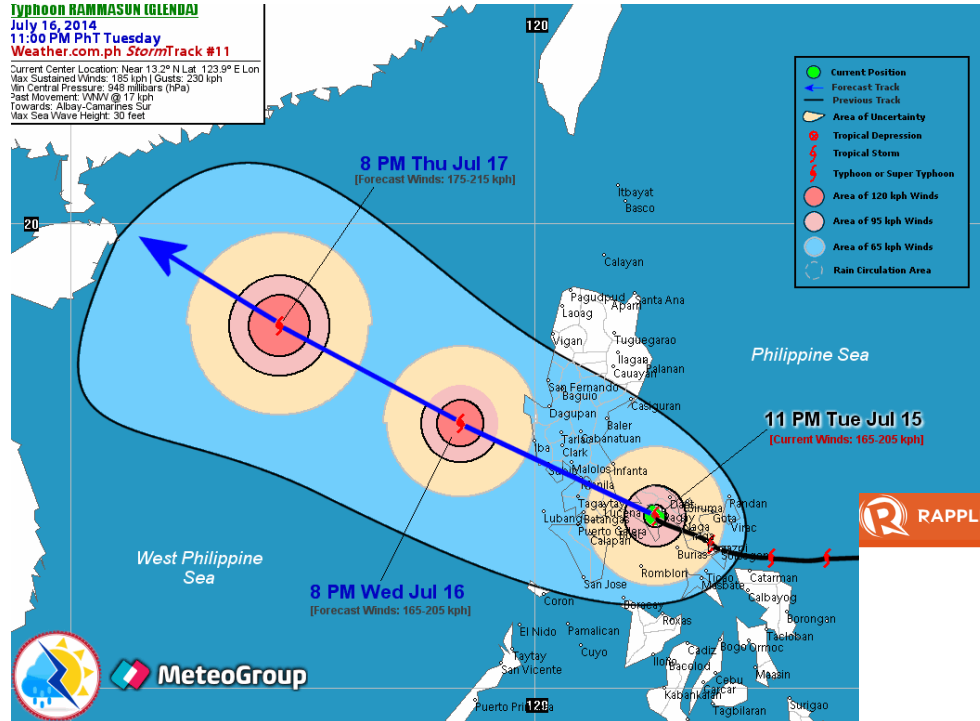
Follow us on Facebook and Twitter

Gold sponsors:
syngenta
KURODA LIFE-IT

weather TV:

- daily updates with explanations about severe weather situation in local language by „Mr. Typhoon“ David Michael V. Padua, Senior Typhoon Specialist at MeteoGroup Philippines

Communication Initiatives



- Provided regular updates on www.weather.com.ph, Facebook and Twitter Accounts
- Updates were also used by Rappler



Independent weather monitoring agency **Weather Philippines** said moderate to heavy rains (30 to 55 mm) will likely fall in certain areas in Bicol from Tuesday morning to Wednesday morning. These areas are: Catanduanes; Camarines Norte; the towns of Caramoan, Garchitorea and Siruma in Camarines Sur.

PAGASA forecasted that Glenda will be near Infanta, Quezon on Wednesday morning then near Iba, Zambales on Thursday morning.

Glenda is expected to make landfall in Quezon province on Wednesday, July 16. – Rappler.com

MeteoGroup services for B2B private sectors



Energy



Renewables



Road



Rail



Aviation



Shipping



Offshore



Construction



Insurance



Agriculture



Leisure



Water Management



Media



Consumer

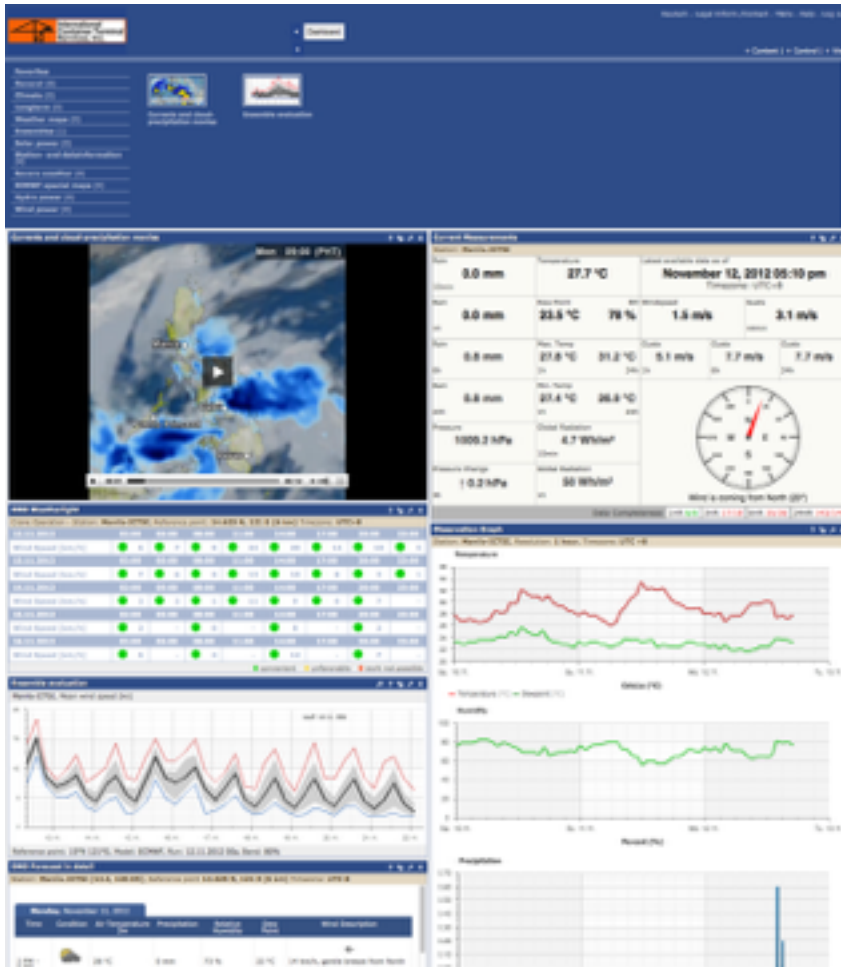


Retail



Building Automation

MeteoGroup services for B2B private sectors



- tailor-made customer solutions
- optimized risk management
- planning certainty (work force management/material)
- extensive weather information
- Example: ICTSI - International Container Terminal Services, Inc., based in Manila:
 - global port operator
 - use web based „weather-cockpit“ as a tool for risk management & planning (strong wind, severe weather, wave heights, etc.)

Sustainability: Private Partnerships

Service Partners:

- Cebu Pacific for free flights and hosting of 26 AWS and 9 lightning detectors
- Rappler for information dissemination
- Kenrich Int'l (Primer Group) for LGU capacity building on disaster response and provision of 100k worth of uniforms
- iAcademy for website and mobile app development (ongoing)
- Globe Telecom, Inc. for the sponsorship of 400 sim cards
- Pisig Worldwide for email blasting of weather alerts
- GeiserMaclang for LGU capacity building (Crisis Comms/Business Continuity)



**Empowering the world
to master the weather**