## FY2013 Major Water Related Disaster in the world (Asia Region)

India. Nepal (Jun. 2013) The Torrential rain by early coming monsoon caused floods, flash floods and landslides in northern India and Nepal. The Death toll was 6,290 across India. 60 in Nepal

India (Oct. 2013)
The Tropical Cyclone
PHAILIN landed at east
coast of India, and killed
22 people. 900,000
people evacuated in
Odisha and Andhra
Pradesh on its path.

India (Oct. 2013) The Flash floods in Odisha and Andhra Pradesh, east coast of India, killed 67 people.

Saudi Arabia (Apr.2013) Continuous heavy rain for 2 weeks caused floods and flash floods in various area. The death toll was 25 in Saudi Arabia, 11 in Oman and 4 in Iraq.

Thailand (Sep. 2013)
The heavy rain during the rainy season caused floods in 47 provinces out of 77 provinces in Thailand. The death toll was 80. The inundation at Industrial estate reported.

Afghanistan, Pakistan (Aug. 2013) The torrential rain by monsoon caused floods and flashfloods. 75 killed in Afghanistan and 193 killed in Pakistan. Bangladesh (May. 2013) Landed Tropical cyclone MAHASEN brought Torrential rain and storms. The death toll was 17., and 956,672 people living in coastal areas were evacuated to shelter at 3,200 locations.

China (May. 2013)
Continuous heavy rain
caused floods and
landslide in south China.
As of am 8:00 on 17th
May, 55 died and 14 were
missing.

China (Aug. 2013)
Continuous heavy rain
caused over-flow the river
of border area between
China and Russia, and
floods in Northeast China
and Far East Russia. The
death toll was 85 and 105
were missing in China.

China (Aug. 2013)
The torrential rain by
Typhoon Utor, hit China on
Aug. 14, caused floods in
southern China. More than 8
million were affected, killed
70 and 18 were missing.

China, Taiwan (Jul. 2013) Torrential rain caused floods and landslides in China. And Typhoon SOULIK lashed Taiwan and coastal area of China on 13<sup>th</sup> Jul. These killed 120 people and 192 missing.

China, Viet Nam
(Sep.2013)
The rainstorm by
Typhoon WUTIP caused
floods and killed 11 and 5
missing in Viet Nam.
The fishing vessel from
China sank in the South
China Sea before WUTIP
landed at Viet Nam, 4
died and 58 were missing.

Indonesia (Jul. 2013)
The natural dam which
has made about a year
before collapsed, and this
caused floods. 1 killed, 3
were missing and 32
injured.

Philippines (Jan. 2014)
The Torrential rain from Low
Pressure Area lashed east
of Mindanao Island, caused
floods and landslides.
The LPA have grown
stronger to the Tropical
Depression AGATON.
Rivers over-flowed. Roads
and bridges were damaged.
The death toll was 70 and 9
were missing.

Philippines (Sep. 2013)
The rainstorm by powerful
Typhoon USAGI caused
floods and landslides.
The death toll was 31 in
Philippines, and 27 in
China.

Philippines (Nov. 2013)
The Typhoon HAIYAN,
the most powerful
typhoon in 2013, landed
at Eastern Samar at
morning on 8th Nov, and
moved across Leyte,
Cebu and Panay Island,
then went to South China
Sea at morning on 9th.
This typhoon killed 6,292
and 1,065 were missing in
3 countries.

Viet Nam (Nov.2013) The torrential rain by Tropical Depression caused floods in Central Viet Nam. 42 people killed and 5 were missing.

Viet Nam, Cambodia, Myanmar (Sep. 2013) The torrential rain during rainy season turned worse by typhoon, and it caused floods. The death toll was 40 in Viet Nam, 188 in Cambodia and 1 in Myanmar.

\* Filtered the disaster more than 10 death in the developed countries and more than 50 death in the developing countries.

Local Survey carried out

Number of Death ~50

Number of Death ~100

Number of Death ~500

Number of Death ~1,000

Number of Death 1,000~

Data collection period: Apr. 2013 - Mar. 2014

## FY2013 Major Water Related Disaster in the world (Except Asia Region)

outages.

Europe (Oct. 2013) The rainstorm lashed northern Europe on 28th Oct 2013.

15 died in UK and transportation was disrupted in various locations.

Europe (Dec. 2013) Northern Europe was hit by the most powerful winter storm in 60 years, named XAVER.

Storm surge, floods and strong winds damaged houses and businesses. killed 10 people.

Those caused power outage in wide area and disruptions of transportation.

Italy (Nov. 2013)

The torrential rain caused floods in southern island of Sardinia. The river over-flowed, bridges were collapsed.

The death toll was 18

Sudan (Aug. 2013) About 530,000 people were affected by continuous heavy rain since early Aug., and the death toll was 53. Infrastructure damage was serious.

> Burundi (Feb. 2014) The Feb. 9 torrential rain caused floods and landslides. Transport and electric power supply were suspended. 64 dead and 32 missing.

Central Europe (Jun. 2013) The torrential rain in central Europe caused floods in various location.

The death toll is 22.

Somalia (Nov. 2013) The Tropical Cyclone THREE landed at Puntland in Somalia on 10th Nov. the rainstorm by this cyclone caused floods, and killed 162 people.

Kenya (Apr. 2013)

The heavy rain by monsoon continued from March to May, and some area faced 200% rainfall against average. This caused floods across the country. and the death toll was 170 in eastern Africa region, 225,000 people displaced.

The heavy rain caused floods and landslides. killed 45 in 2 states in southeast Brazil. Lots of roads and

infrastructures were damaged.

Canada (Jul. 2013) The heavy rain caused floods, inundation of roads and subway stations and power outages.

Canada (Jun. 2013) The torrential rain caused floods, more than 100,000 evacuated and 4 died. There were shutdown of oil pipelines and power

US (Sep. 2013) The torrential rain from 11th to 12th Sep caused floods in Colorado, death toll was 8, and 1 missing (presumed dead).

Brazil (Dec. 2013) At Lajedinho in Bahia, northeast Brazil, has been facing drought, hit heavy rain in short period of time and flooded. The death toll was 16. and 1 was missing.

Brazil (Dec. 2013)

US (Apr. 2013) The heavy rain since mid Apr was swollen Mississippi and Illinois River, and this caused floods in 6 states in central west. The death toll was 5.

US (May. 2013) Heavy rain and tornado struck Oklahoma state and its suburbs in 31st May. caused floods. Death toll was 23 in 3 states and 6 missing by floods and tornados.

Mexico (Aug. 2013) The heavy rain by the Tropical Storm FERNAND. landed midnight, caused landslides. The death toll was 13.

> Mexico (Sep. 2013) The Tropical Storm MANUEL hit western Mexico and The Tropical Storm INGRID hit northeastern Mexico on 15th, the rainstorm caused floods and landslides The death toll was 139 and more than 50 missing.

Argentina (Apr. 2013) The rainfall was recorded 400mm for 2 hours form 2<sup>nd</sup> to 3<sup>rd</sup> Apr. this caused floods. The death toll was 54 and more than 2,200 people evacuated. More than half area of La Plata city faced power outage and cut off the telephone

**Local Survey** carried out

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Number of Death ~100

Number of Death ~500

Number of Death ~1,000

Number of Death 1,000~

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