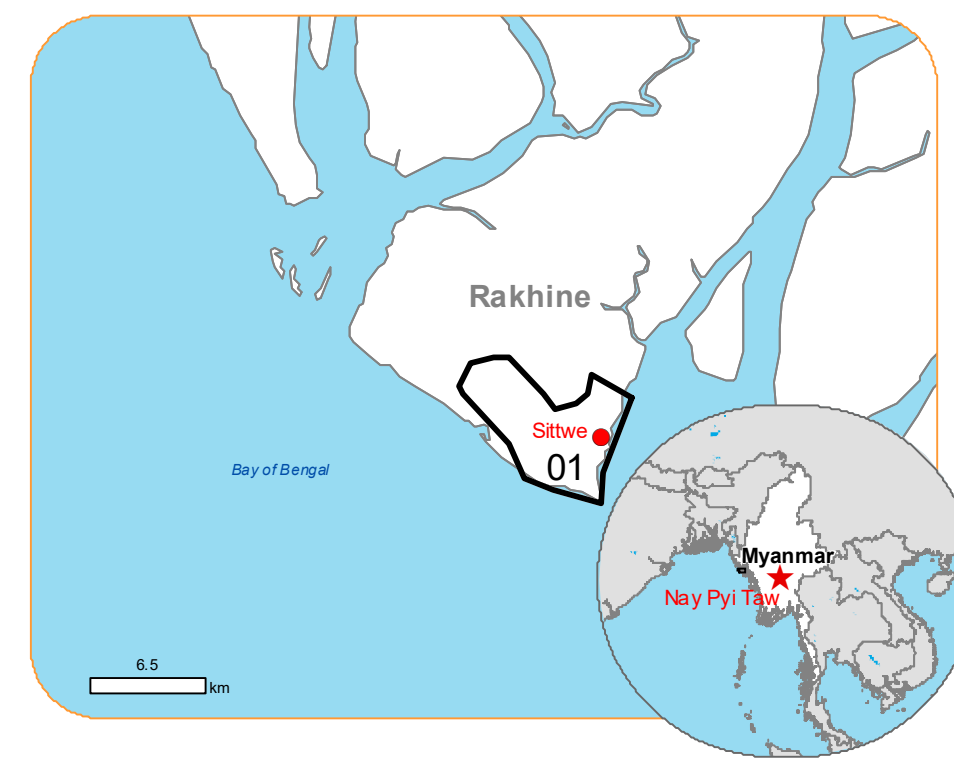




EMSR661 - AOI01
Storm in Myanmar
SITTWE CITY

Situation as of 17/05/2023 04:36 UTC
Grading - Overview map 01





Observed Event
Flooded area 125.8 ha



Potentially affected
population
~ 250

Potentially Affected Built-up and Transportations



Built-up
21514 No.



Bridge
9 No.




Facilities
5 No.












Road
260.7 km


Crisis Information

-  Flooded Area







Built-Up Grading








-  Residential Building, Destroyed
-  Residential Building, Damaged
-  Residential Building, Possibly damaged
-  Non-residential Building, Destroyed
-  Non-residential Building, Damaged
-  Non-residential Building, Possibly damaged
-  Unclassified Building, Destroyed
-  Unclassified Building, Damaged
-  Unclassified Building, Possibly damaged

Facilities Grading



-  Civil engineering works, Damaged

Transportation Grading


-  Bridge and elevated highway, Destroyed
-  Bridge and elevated highway, Possibly damaged
-  Bridge and elevated highway, No visible damage
-  Road, Destroyed
-  Road, Damaged
-  Road, Possibly damaged

-  Railway, Possibly damaged
-  Main road, No visible damage
-  Local road, No visible damage
-  Track, No visible damage
-  Railway, No visible damage
-  Airfield runway, No visible damage
-  Airfield and Heliprot, No visible damage


General Information

-  Area of Interest
-  Detail map







Administrative boundaries

-  Municipality

Placenames

-  Placename

Hydrography

-  Coastline
-  River
-  Lake
-  Land Subject to Inundation
-  Reservoir
-  River

All data displayed on the map(s), as well as the Land Use - Land Cover layer, is available in the Crisis Information Package and the Base Layer Package (for reference data). All products and data are also available for download on the activation webpage.

Event:
Tropical cyclone MOCHA-23 formed over the southern Bay of Bengal on 11th of May 2023 with redicted category 3 and winds up to 204km/h. It is expected to landfall on Sunday 14th of May in Sittwe city with maximum sustained winds up to 165km/h. Exposed population can be up to 2.6 million people.

Data sources and analysis: Pre-event image: WorldView-3 © Maxar Technologies, Inc. (2023), (acquired on 03/01/2023 at 04:30 UTC, resolution 0.5 m).
WorldView-3 © Maxar Technologies, Inc. (2023), (acquired on 17/02/2023 at 04:34 UTC, resolution 0.5 m).
Post-event image: Pléiades-1B © CNES (2023), distributed by Airbus DS (acquired on 17/05/2023 at 04:36 UTC, resolution 0.5 m).
All images are provided under COPERNICUS by the European Union and ESA, all rights reserved.

Base vector layers: OpenStreetMap © OpenStreetMap contributors (2023), Wikimapia.org, GeoNames 2015, Corine Land Cover (CLC) 2018, EuroBoundaryMap 2017 © EuroGeographics.
Inset maps: JRC 2013, GISCO 2010 © EuroGeographics, Natural Earth 2012, CCM River DB © EUJRC2007, GeoNames 2015.

Population data: GHS Population Grid © European Commission, 2022
https://ghsl.jrc.ec.europa.eu/ghs_pop2022.php

The thematic layer has been derived from post-event satellite image using a semi-automatic approach.
The scale of analysis is 1:10000. The estimated geometric accuracy (RMSE) is 2.5 m or better, from native positional accuracy of the background satellite image. The minimum mapping unit (MMU) is 100 sq m.

Map produced by GMV released by e-GEOS on the 18/05/2023.

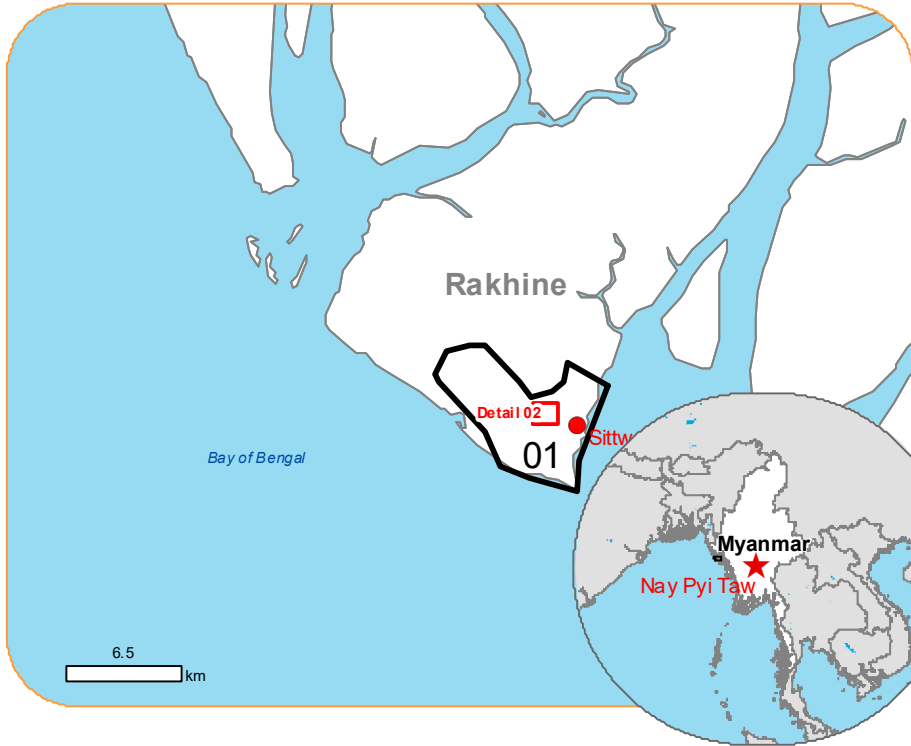
Details on this activation and service conditions available through the QR code or at the link:
<https://emergency.copernicus.eu/EMSR661>





EMSR661 - AOI01
Storm in Myanmar
SITTWE CITY

Situation as of 17/05/2023 04:36 UTC
Grading - Detail map 02



Observed Event
Flooded area 1.6 ha
1.3% of total in AOI



Potentially affected
population
~ 10

Potentially Affected Built-up and Transportations



Built-up 2,463 No.
11.45% of potentially
affected



Road 18.1 km
6.94% of potentially
affected

Crisis Information

Flooded Area

Built-Up Grading

- Residential Building, Possibly damaged
- Unclassified Building, Destroyed
- Unclassified Building, Damaged
- Unclassified Building, Possibly damaged

Transportation Grading

- Road, Damaged
- Road, Possibly damaged
- Main road, No visible damage
- Local road, No visible damage
- Track, No visible damage

General Information

Area of Interest

Placenames

Placename

Hydrography

Coastline

River

Reservoir

All data displayed on the map(s), as well as the Land Use -Land Cover layer, is available in the Crisis Information Package and the Base Layer Package (for reference data).
All products and data are also available for download on the activation webpage.

Event:

Tropical cyclone MOCHA-23 formed over the southern Bay of Bengal on 11th of May 2023 with redicted category 3 and winds up to 204km/h. It is expected to landfall on Sunday 14th of May in Sittwe city with maximum sustained winds up to 165km/h. Exposed population can be up to 2.6 million people.

Data sources and analysis: Pre-event image: WorldView-3 © Maxar Technologies, Inc. (2023), (acquired on 03/01/2023 at 04:30 UTC, resolution 0.5 m).
WorldView-3 © Maxar Technologies, Inc. (2023), (acquired on 17/02/2023 at 04:34 UTC, resolution 0.5 m).
Post-event image: Pléiades-1B © CNES (2023), distributed by Airbus DS (acquired on 17/05/2023 at 04:36 UTC, resolution 0.5 m).
All images are provided under COPERNICUS by the European Union and ESA, all rights reserved.

Base vector layers: OpenStreetMap © OpenStreetMap contributors (2023), Wikimapia.org, GeoNames 2015, Corine Land Cover (CLC) 2018, EuroBoundaryMap 2017 © EuroGeographics, Inset maps: JRC 2013, GISC0 2010 © EuroGeographics, Natural Earth 2012, CCM River DB © EUJRC2007, GeoNames 2015.

Population data: GHS Population Grid © European Commission, 2022
https://ghsl.jrc.ec.europa.eu/ghs_pop2022.php

The thematic layer has been derived from post-event satellite image using a semi-automatic approach.
The scale of analysis is 1:10000. The estimated geometric accuracy (RMSE) is 2.5 m or better, from native positional accuracy of the background satellite image. The minimum mapping unit (MMU) is 100 sq m.

Map produced by GMV released by e-GEOS on the 18/05/2023.

Details on this activation and service conditions available through the QR code or at the link:
<https://emergency.copernicus.eu/EMSR661>

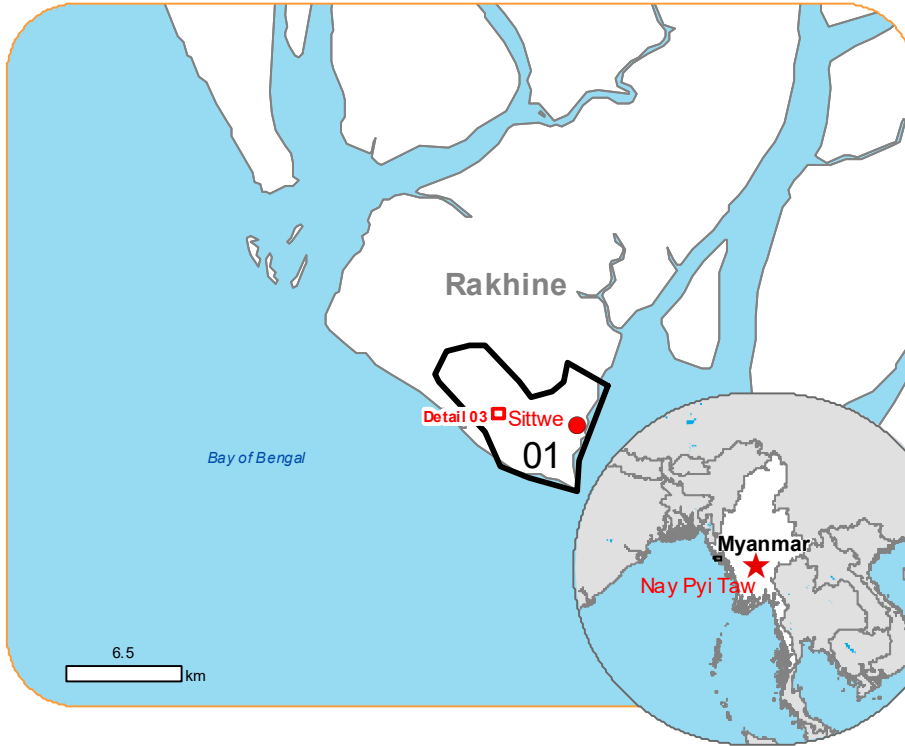


PROGRAMME OF THE
EUROPEAN UNION





Situation as of 17/05/2023 04:36 UTC
Grading - Detail map 03



Potentially Affected Built-up and Transportations



Crisis Information

Built-Up Grading

- Non-residential Building, Destroyed
- Non residential Building, Damaged
- Unclassified Building, Destroyed
- Unclassified Building, Damaged
- Unclassified Building, Possibly damaged

Transportation Grading

- Road, Damaged
- Road, Possibly damaged
- Railway, Possibly damaged

General Information

Area of Interest

Placenames

Placename

All data displayed on the map(s), as well as the Land Use -Land Cover layer, is available in the Crisis Information Package and the Base Layer Package (for reference data). All products and data are also available for download on the activation webpage.

Event:
Tropical cyclone MOCHA-23 formed over the southern Bay of Bengal on 11th of May 2023 with redicted category 3 and winds up to 204km/h. It is expected to landfall on Sunday 14th of May in Sittwe city with maximum sustained winds up to 165km/h. Exposed population can be up to 2.6 million people.

Data sources and analysis: Pre-event image: WorldView-3 © Maxar Technologies, Inc. (2023), (acquired on 03/01/2023 at 04:30 UTC, resolution 0.5 m).
WorldView-3 © Maxar Technologies, Inc. (2023), (acquired on 17/02/2023 at 04:34 UTC, resolution 0.5 m).
Post-event image: Pléiades-1B © CNES (2023), distributed by Airbus DS (acquired on 17/05/2023 at 04:36 UTC, resolution 0.5 m).
All images are provided under COPERNICUS by the European Union and ESA, all rights reserved.

Base vector layers: OpenStreetMap © OpenStreetMap contributors (2023), Wikimapia.org, GeoNames 2015, Corine Land Cover (CLC) 2018, EuroBoundaryMap 2017 © EuroGeographics, Inset maps: JRC 2013, GISC0 2010 © EuroGeographics, Natural Earth 2012, CCM River DB © EUJRC2007, GeoNames 2015.

Population data: GHS Population Grid © European Commission, 2022
https://ghsl.jrc.ec.europa.eu/ghs_pop2022.php

The thematic layer has been derived from post-event satellite image using a semi-automatic approach.
The scale of analysis is 1:10000. The estimated geometric accuracy (RMSE) is 2.5 m or better, from native positional accuracy of the background satellite image. The minimum mapping unit (MMU) is 100 sq. m.

Map produced by GMV released by e-GEOS on the 18/05/2023.

Details on this activation and service conditions available through the QR code or at the link:
<https://emergency.copernicus.eu/EMSR661>

EMSR661 AOI: 01 Sittwecity Grading

Consequences within the AOI								
	Unit of measurement			Destroyed	Damaged	Possibly damaged*	Total affected**	Total in AOI
Flooded area		ha						125.8
Estimated population	Number of inhabitants						~ 250	~ 89,000
Built-up	Residential Buildings	No.		123	42	10	175	175
	School, university and research buildings	No.		174	10	8	192	192
	Buildings used as places of worship and for religious activities	No.		2	0	0	2	11
	Communication buildings, stations, terminals and associated building	No.		5	3	0	8	9
	Unclassified	No.		9,749	11,107	281	21,137	21,138
Transportation	Airfield runways	ha		0.0	0.0	0.0	0.0	61.5
	Airfield runways	km		0.0	0.0	0.0	0.0	2.9
	Primary Road	km		0.0	0.0	1.5	1.5	15.4
	Local Road	km		0.0	129.6	72.8	202.3	255.4
	Cart Track	km		0.5	12.3	34.0	46.8	65.8
	Long-distance railways	km		0.0	0.0	9.9	9.9	10.2
	Bridges and elevated highways	No.		5	0	4	9	23
Facilities	Sport and recreation constructions	ha		0.0	0.0	0.0	0.0	0.8
	Other civil engineering works not elsewhere classified	No.		0	5	0	5	5
			Very high damage	High damage	Moderate damage	Negligible to slight damage	Total affected**	Total in AOI
Land use	Heterogeneous agricultural areas	ha	NA	NA	NA	NA	111.9	2,606.7
	Shrub and/or herbaceous vegetation association	ha	NA	NA	NA	NA	6.7	107.6
	Other	ha	NA	NA	NA	NA	5.7	1,279.7
	Forests	ha	NA	NA	NA	NA	0.0	6.6
* Presence of damage proxies and proximity with destroyed/damaged asset ** Sum of all damage classes								

Disclaimer:

Full disclaimer and other helpful information available in the online manual:

<https://emergency.copernicus.eu/mapping/ems/online-manual-rapid-mapping-products>

© European Union / Copernicus Emergency Management Service



PROGRAMME OF THE
EUROPEAN UNION

