

## Analysis question

In the event of a Flood, what length of Roads might be affected?

## General report

Estimated length of roads affected per hazard zone

Hazard Zone	Length (m)
High	84,900
Medium	41,400
Low	50,100
<b>Total Exposed</b>	<b>177,000</b>

Roads	Length (m)
Affected	127,000
Not Affected	50,100
Not Exposed	9,791,000

- **Affected:** An exposure element (e.g. people, roads, buildings, land cover) that experiences a hazard (e.g. tsunami, flood, earthquake) and endures consequences (e.g. damage, evacuation, displacement, death) due to that hazard.

## Analysis detail

Estimated length of roads (m) affected by road type

Road type	Affected			Not affected		Total not exposed	Total
	High	Medium	Total affected	Low	Total not affected		
<b>Motorway</b>	622	129	751	119	119	174,000	175,000
<b>Primary</b>	197	0	197	0	0	271,000	271,000
<b>Secondary</b>	7,300	3,800	11,100	4,000	4,000	1,489,000	1,504,000
<b>Local</b>	20,700	13,700	34,300	16,000	16,000	4,786,000	4,836,000
<b>Path</b>	56,100	23,900	80,000	30,200	30,200	1,565,000	1,675,000
<b>Other</b>	0	0	0	0	0	1,508,000	1,508,000
<b>Total</b>	<b>84,900</b>	<b>41,400</b>	<b>127,000</b>	<b>50,100</b>	<b>50,100</b>	<b>9,791,000</b>	<b>9,967,000</b>

## Aggregation result

Estimated length of roads (m) affected by aggregation area

Aggregation area	Motorway	Primary	Secondary	Local	Path	Total
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<b>Pundanhar</b>	0	0	0	182	145	327
<b>Nangade</b>	0	0	0	67	0	67
<b>Olumbi</b>	0	0	0	10	0	10
<b>N'gapa</b>	0	0	256	634	0	890
<b>M'tamba</b>	0	0	0	94	0	94
<b>Negomano</b>	0	197	287	776	0	1,300
<b>Imbuo</b>	0	0	0	0	439	439
<b>Chitunda</b>	0	0	1,200	5,200	14,000	20,200
<b>Muidumbe</b>	0	0	0	0	976	976
<b>Quiterajo</b>	0	0	0	0	9,800	9,800
<b>Chapa</b>	0	0	1,200	0	0	1,200
<b>Chai</b>	0	0	2,400	3,700	13,700	19,700
<b>Nairoto</b>	0	0	128	3,900	614	4,600
<b>Mucojo</b>	0	0	0	550	0	550
<b>Meluco</b>	0	0	0	227	0	227
<b>Muaguide</b>	0	0	569	1,400	1,100	3,000
<b>Bilibiza</b>	0	0	0	0	15,700	15,700
<b>Mahate</b>	0	0	645	437	5,900	7,000
<b>Mirate</b>	0	0	337	164	513	1,100
<b>Ancuabe</b>	0	0	113	1,100	188	1,400
<b>Metuge</b>	0	0	393	3,800	6,600	10,700
<b>Montepuez</b>	0	0	212	199	83	494
<b>Mavala</b>	0	0	0	288	0	288
<b>Metoro</b>	39	0	0	0	0	39
<b>Murrebue</b>	0	0	0	53	222	275
<b>Mapupulo</b>	0	0	0	364	0	364
<b>Diacá</b>	0	0	0	978	0	978
<b>Balama</b>	0	0	0	113	0	113
<b>Mbau</b>	0	0	0	0	1,900	1,900
<b>Mecufi</b>	0	0	2,400	5,200	2,500	10,000
<b>Chiure</b>	242	0	0	0	0	242
<b>Mocimboa_da_praia</b>	0	0	770	1,100	0	1,900

<b>Chiure velho</b>	0	0	0	71	0	71
<b>Mazeze</b>	0	0	366	2,200	5,700	8,200
<b>Namuno</b>	0	0	0	123	0	123
<b>Ocuá</b>	470	0	0	1,200	64	1,700
<b>Namogelia</b>	0	0	0	540	0	540
<b>N'cumpe</b>	0	0	0	40	0	40
<b>Hucula</b>	0	0	0	0	99	99
<b>Papai</b>	0	0	0	245	20	265
<b>Machoca</b>	0	0	0	33	0	33
<b>Total</b>	<b>751</b>	<b>197</b>	<b>11,100</b>	<b>34,300</b>	<b>80,000</b>	<b>127,000</b>

## Notes and assumptions

### Analysis notes

- Columns and rows containing only 0 or "No data" values are excluded from the tables.

### Road exposure general notes

- The impacts on roads, people, buildings and other exposure elements may be underestimated if the exposure data are incomplete.
- Numbers for road lengths have been rounded to the nearest 10 metres if the total is less than 1,000; nearest 100 metres if more than 1,000 and less than 100,000; and nearest 1000 metres if more than 100,000.
- Rounding is applied to all road lengths, which may cause discrepancies between subtotals and totals.
- Note that report rows containing totals are calculated from the entire analysis area totals and then rounded, whereas the subtotal rows are calculated from the aggregation areas and then rounded. Using this approach we avoid adding already rounded numbers and in so doing compounding the rounding.
- Roads marked as not affected may still be unusable due to network isolation. Roads marked as affected may still be usable if they are elevated above the local landscape.
- Roads are closed if they are affected.
- Roads are open if they are not affected.

### Flood general notes

- The extent and severity of the mapped scenario or hazard zones may not be consistent with future events.
- The impacts on roads, people, buildings and other exposure elements may differ from the analysis results due to local conditions such as terrain and infrastructure type.
- The analysis extent is limited to the extent of the aggregation layer or analysis extent. Hazard and exposure data outside the analysis extent are not included in the impact layer, impact map or impact reports.

### Affected notes

- Exposures in the following hazard classes are considered affected: High, Medium

## Analysis details

**Hazard source** Flood - 500 year return period - source not available -

**Exposure source** Osm Roads (Daily extract) - OpenStreetmap -

**Aggregation source** Aggregation by Post - Cabo Delgado Province - CENACARTA -

**Impact Function** Flood Raster On Roads Line