

Estimating settlements exposure to flood risk

Floods in Myanmar occur during the monsoon months in May/June to September/October and include wide spread flood along the major hydrological network and and flash flood at the small rivers and stream

The main cause of wide spread flood is heavy rainfall striking at the head water regime for considerable period (1 to 3 days), the flood wave forming at the head water started to move downward and causing flood along the river up to the deltaic area.

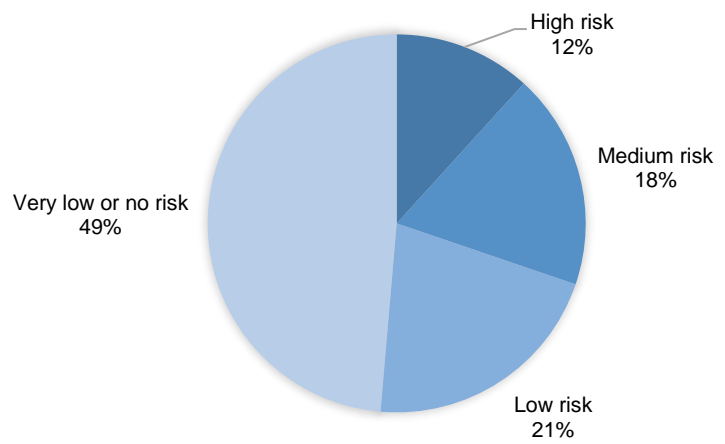
The flash flood is caused by heavy rainfall fell on the source and the flood wave move downward swiftly. Observation shows that the percentage of occurrence of floods (exceeding danger level) in medium and large rivers of Myanmar are 6% in June, 23% in July, 49% in August, 14% in September and 8% in October

Hazard	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cyclone												
High temperature												
Low temperature												
Drought												
Thunderstorm												
Flood												
Heavy rain												
Monsoon												
Hail												

Flood risk is compounded by a multiple layer of natural hazard risk with an overlapping time window between April and September, with the maximum compounded risk occurring in the month of August

As of October 2023, a total of 9,716 settlements have been mapped and P-Coded by the Myanmar Information Management Unit (MIMU). A flood risk classification for the mapped settlements has been developed to estimate the settlements exposure to past flood levels at a buffer zone of 150 meters, 300 meters, 500 meters and 1Km, taking into account hydrology, topography and elevation. The results show that 30% of the mapped settlements are located in either a high or medium risk zone, with 51% of the settlements in a risk zone (low to high)

FLOOD RISK CLASSIFICATION FOR 9,716 MAPPED SETTLEMENTS



Legend – settlement flood risk classification

- High risk
- Low risk
- No risk
- Medium risk
- Very low risk

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