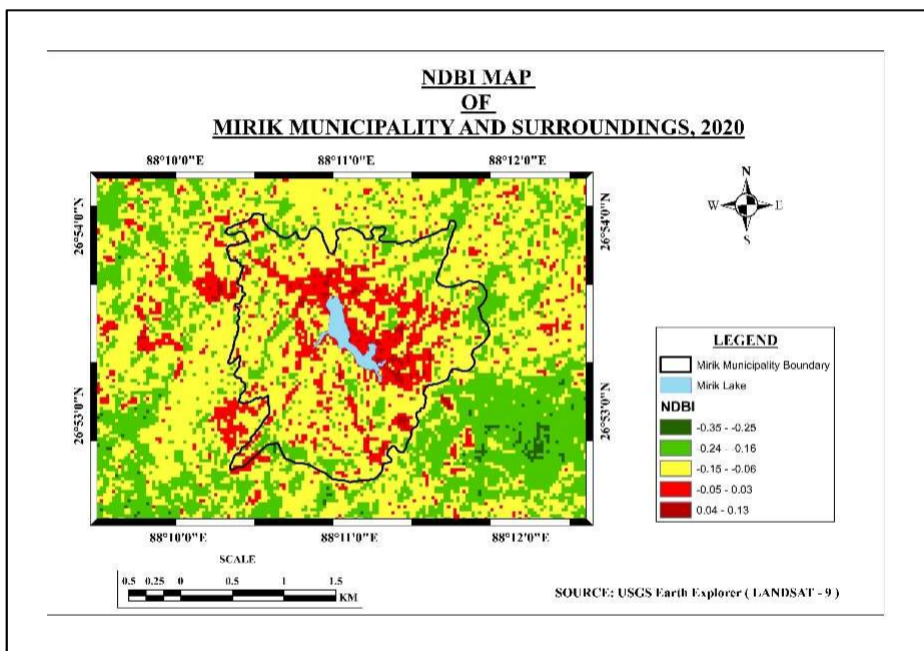
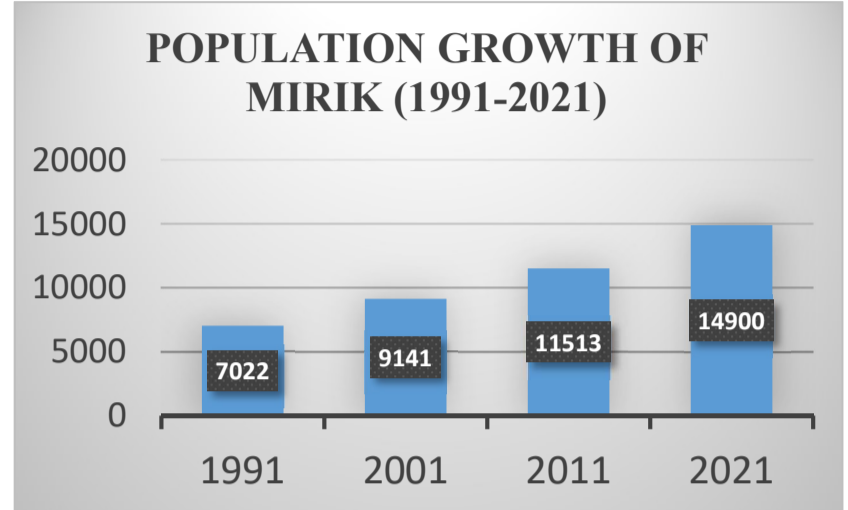
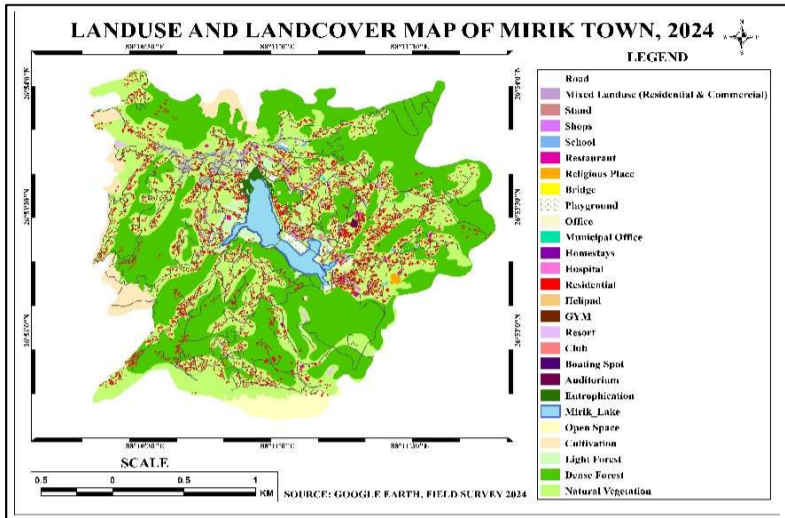
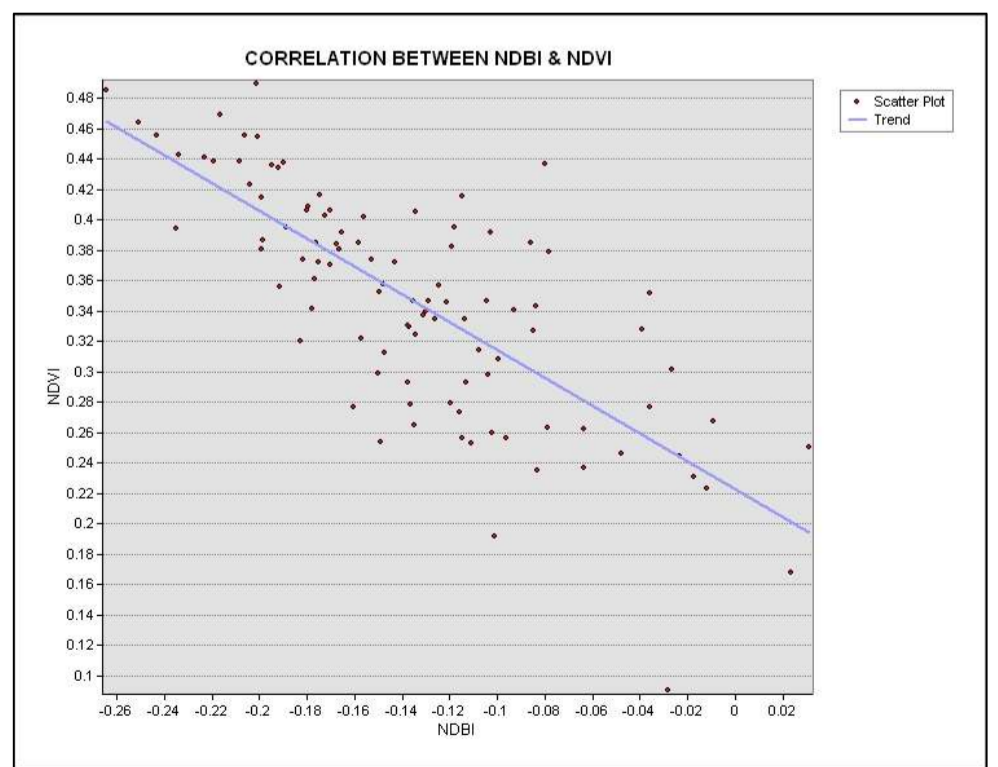
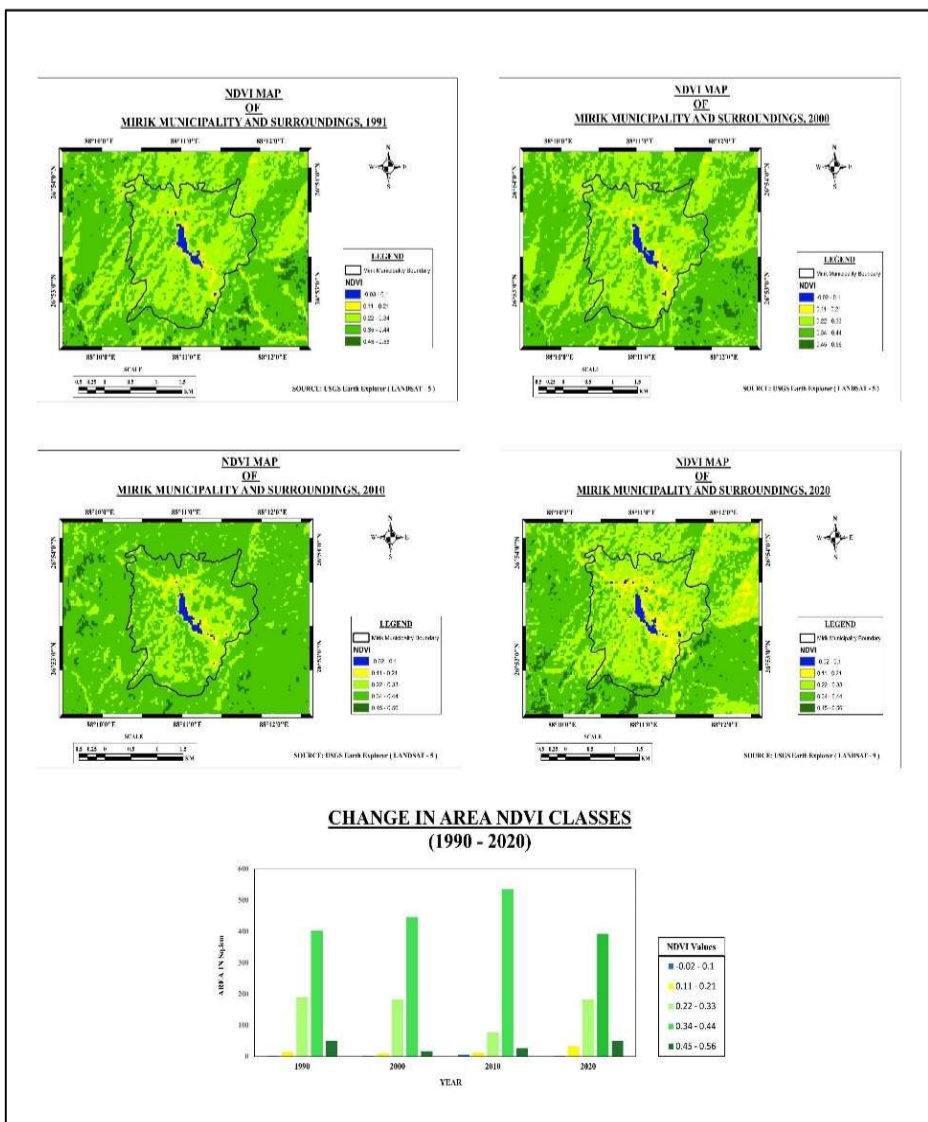


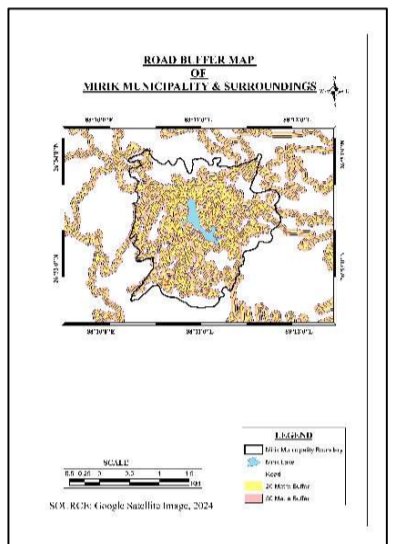
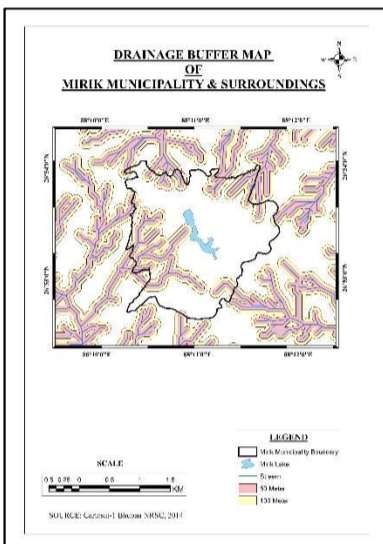
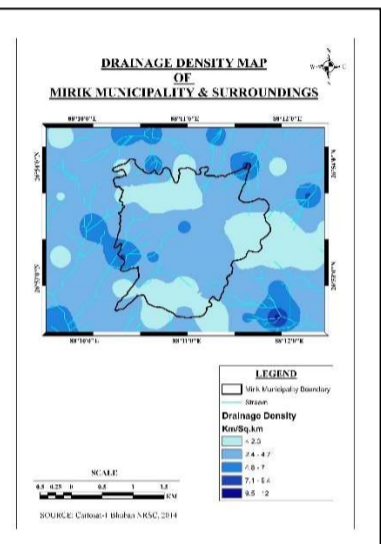
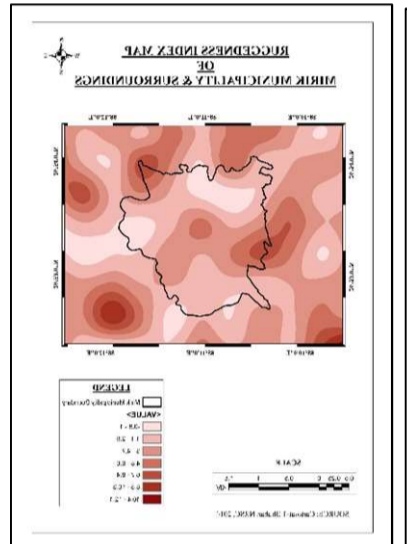
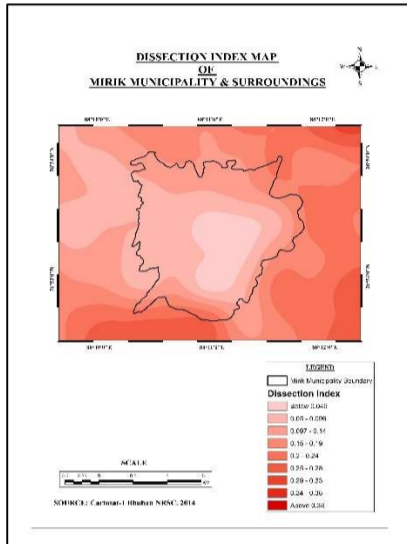
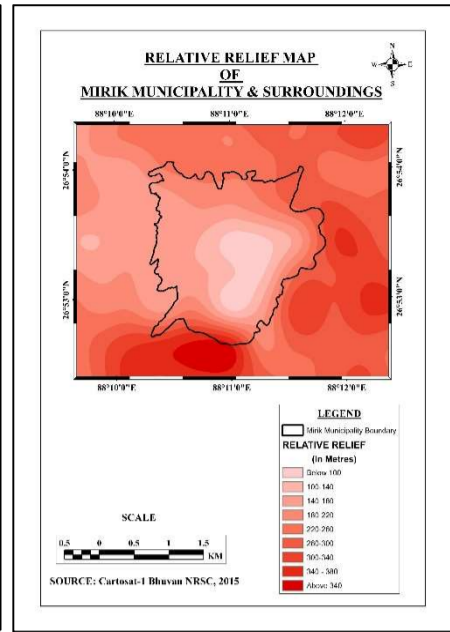
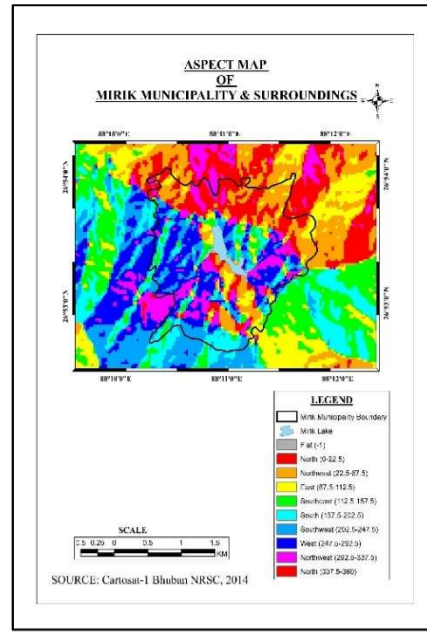
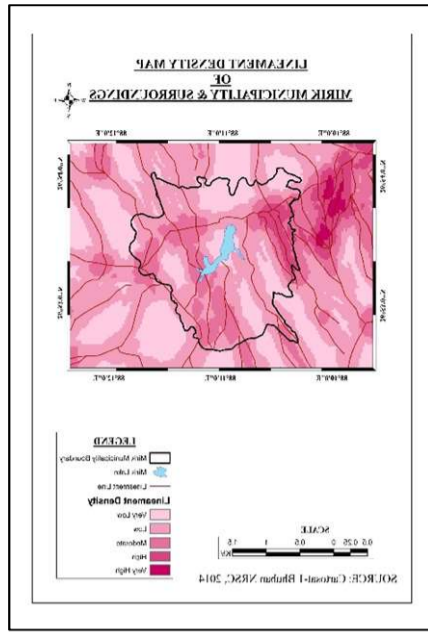
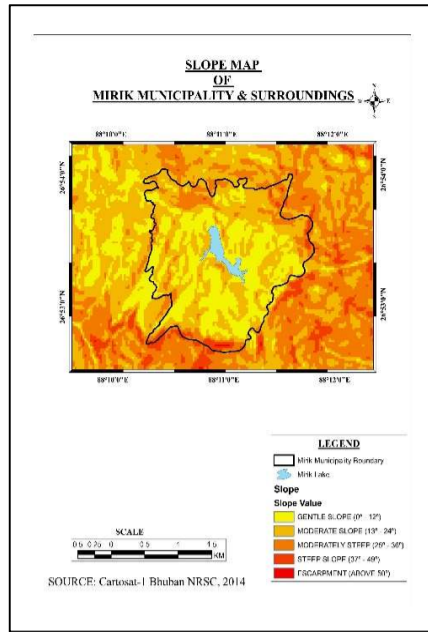
# LANDSLIDE VULNERABILITY ANALYSIS: A CASE STUDY OF MIRIK MUNICIPALITY & SURROUNDINGS

Mirik is a municipality located in the Darjeeling district of West Bengal, India. It is situated in the northwestern part of the state, near the border with Nepal. The geographic coordinates of Mirik municipality in West Bengal are approximately 26°54' N - 26°53' latitude and 88°10' E - 88°12' E longitude.



- ▶ Significant improvements in infrastructure have been observed, including better road connectivity, expansion of local amenities, and enhanced public services.
- ▶ The town has experienced a surge in residential development, with new housing projects and residential complexes emerging to accommodate a growing population.
- ▶ As a popular hill station, Mirik's tourism sector has expanded. Investments in tourism infrastructure, such as hotels and recreational facilities, have contributed to its urban growth.
- ▶ There has been a rise in commercial establishments, including shops, restaurants, and markets, reflecting increased economic activity and consumer spending.
- ▶ Mirik's population has steadily increased, driven by both internal migration from rural areas and external migration from other regions seeking opportunities or a pleasant living environment.
- ▶ The town has seen improvements in educational institutions and healthcare facilities to cater to its growing population, including new schools and healthcare centers.





- Most landslides to the NW, W, S of Mirik all landslides have occurred in tea gardens whereas within town landslides have occurred within high height plantation and agricultural land nearing roads or drainage lines. To the NE, E and SE, landslides have occurred in sparse vegetated areas.
- The highest or rather tallest landslide has been seen in eastern part of Mirik beyond town limits with 175 meter height. Landslides within town limits are less while those outside are more ranging from 30 – 88 meters.
- The largest area landslides have occurred in immediate surroundings of Mirik, though those within town are much less in extension. The largest area 18750 Sq.mt. landslide is the one that happened to north-eastern part of Mirik. Those to the south are also quite large in area.

FACTORS	LSV	SUBCLASSES	SUBCLASS VALUES
LULC	12	Moderate Vegetation	5
		Grass Land	2
		Agricultural Land	4
		Shrub	3
		Bull up	1
		Water Body	Restricted
		0°-12°	5
		13°-24°	4
		25°-36°	3
		37°-49°	2
SLOPE	12	Above 50°	1
		1	1
		2	2
		3	3
		4	4
		5	5
		6	6
		7	7
		8	8
		9	9
EUCLIDEAN DISTANCE FROM DRAINAGE	15	10	NO DATA
		1	1
		2	2
		3	3
		4	4
		5	5
		6	6
		7	7
		8	8
		9	9
EUCLIDEAN DISTANCE FROM ROAD	15	10	NO DATA
		1	1
		2	2
		3	3
		4	4
		5	5
		6	6
		7	7
		8	8
		9	9
EUCLIDEAN DISTANCE FROM LINEAMENT	10	10	NO DATA
		1	1
		2	2
		3	3
		4	4
		5	5
		6	6
		7	7
		8	8
		9	9

FACTORS	LSV	SUBCLASSES	SUBCLASS VALUES
DRAINAGEDENSITY	10	<2.3	15
		2.4-4.7	4
		4.8-7	3
		7.1-9.4	2
		9.5-12	1
		2	2
		3	3
		4	4
		5	5
		6	6
DRAINAGE CONGESTION	6	Below 100	9
		100-140	7
		140-180	6
		180-220	5
		220-260	4
		260-300	3
		300-340	2
		340-380	1
		Above 340	Restricted
		RELATIVE RELIEF	5
3	2		
4	3		
5	4		
Flat	Restricted		
North	7		
North East	3		
East	2		
South East	5		
South	6		
VEGETATION COVERAGE	5	South West	1
		West	4
		North West	8
		400-567	NO DATA
		567-714	9
		714-862	8
		862-1009	7
		1009-1156	6
		1156-1303	5
		1303-1450	4
ASPECT	5	1450-1597	3
		1597-1744	2
		1744-1891	1
		1	1
		2	2
		3	3
		4	4
		5	5
		6	6
		7	7
ELEVATION	5	NO DATA	1
		NO DATA	2
		NO DATA	3
		NO DATA	4
		NO DATA	5
		NO DATA	6
		NO DATA	7
		NO DATA	8
		NO DATA	9
		NO DATA	10

