



Miranda House

UNIVERSITY OF DELHI

Departmental Annual Report - 3

Departmental Activities: Curriculum and Beyond

Department: Geography

Academic Year: 2022-23

Part A.1

Students undertaking project work/field work/internship as part of experiential learning component of coursework

Programme: B.A. (Hons.) Geography

Semester: 4th Semester

Course: Field Survey and Methodology (Practical)

S. No.	Roll No.	Name	Project Title
1	2021/1618	AAYUSHA SHASHI	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
2	2021/713	ADITI SINGH	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
3	2021/95	AKSHAYA D V	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
4	2021/1414	AMISHA KAJLA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
5	2021/1301	AMISHA RANJAN	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
6	2021/15	ANAGHA B R	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
7	2021/1160	ANAKHA L A	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
8	2021/1842	ANANYA THAKUR	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
9	2021/1781	ANJALI CHOUHAN	Rural Livelihoods and Socio-Economic Vulnerability to



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			assess the sustainability of the developments taking place and that have taken place in the region
10	2021/909	ANJALI MEENA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
11	2021/340	ANJIMA K K	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
12	2021/170	ANNU MALIK	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
13	2021/350	ARYA ALICE SHAW	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
14	2021/244	ASMA NIRBAN	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
15	2021/517	AYITI SRIHASA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
16	2021/828	AYUSHI RANA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
17	2021/1525	BHAVIKA SINGH	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
18	2021/660	CHAHAT CHOUDHARY	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
19	2021/874	DEVAPRIYA R	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
20	2021/2009	DIKSHA KODAN	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
21	2021/1334	DINA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
22	2021/2008	DIPTI YADAV	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
23	2021/742	DIVYA SINGH	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
24	2021/39	DONA DAVIS	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
25	2021/1345	DRISHTI KAVIYA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
26	2021/14	DRISHYA NARAYANAN P	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking



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			place and that have taken place in the region
27	2021/1382	GARIMA YADAV	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
28	2021/152	GOPIKA V S	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
29	2021/721	ISHLEEN KAUR	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
30	2021/148	JYOTSNA YADAV	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
31	2021/1297	KHUSHBOO	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
32	2021/1267	KHUSHI DEBISOW	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
33	2021/514	KOMAL	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
34	2021/1097	MANSI	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
35	2021/1860	MEHREEN ABID	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
36	2021/521	NIKITA SHARMA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
37	2021/998	NISHA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
38	2021/1373	PAYAL GURJAR	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
39	2021/1339	PRATIKSHA SINGH CHAUHAN	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
40	2021/179	PRERNA SINGH BOURA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
41	2021/338	PRITY YADAV	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
42	2021/1963	PRIYA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
43	2021/1494	PRIYA SINGH	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region



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44	2021/914	PRIYADARSHINI UKIL	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
45	2021/1398	RAGNI	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
46	2021/1115	RASHI	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
47	2021/272	RASIKA KAUL	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
48	2021/651	REETU KUSHWAHA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
49	2021/686	RESHMA HARIJAN	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
50	2021/322	RICHA PRAGYA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
51	2021/56	RISHITA TRIPATHI	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
52	2021/622	RIYA BISHNOI	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
53	2021/695	RUPANJANA MUKHERJEE	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
54	2021/224	SADHIKA SAHOO	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
55	2021/449	SAKSHI PAL	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
56	2021/386	SHIVANGI SAPROO	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
57	2021/676	SHREYA SHARMA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
58	2021/698	SHWETA KUMARI	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
59	2021/1774	SOMYA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
60	2021/199	SREELAKSHMI M NAMBIAR	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
61	2021/735	STANZIN SKALDAN	Rural Livelihoods and Socio-Economic Vulnerability to



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			assess the sustainability of the developments taking place and that have taken place in the region
62	2021/1810	SUMNIMA SAH	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
63	2021/1281	SUPRIYA GAUTAM	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
64	2021/1011	SUSHREE SONALIKA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
65	2021/128	TINKU KURI	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
66	2021/993	VANSHIKA KUMAR	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
67	2021/937	VANYA KISHORE	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region
68	2021/278	VIRTA	Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region

Rural Livelihoods and Socio-Economic Vulnerability to assess the sustainability of the developments taking place and that have taken place in the region.

Field Work and Research Methodology

Paper Code: 12291403

B.A. (Hons) Geography, IV Semester

Submitted to



(2023-24)

DEPARTMENT OF GEOGRAPHY

MIRANDA HOUSE

UNIVERSITY OF DELHI

University Roll No. 21047513017





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Programme: B.A. (Hons.) Geography
Semester: 6th Semester
Course: Disaster Management based Project Report (Practical)

S. No.	Roll No.	Name	Project Title
1	2020/123	AAYUSHI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
2	2020/66	ADITI GUPTA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
3	2020/495	AKANKSHA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
4	2020/183	AKANKSHA GAIROLA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
5	2020/004	ALGA B S	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
6	2020/171	AMRITA BHUSHAN	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
7	2020/382	AMRITHDEVU A R	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
8	2020/176	ANANYA DE	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
9	2020/743	ANJALI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat



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10	2020/692	ANSHIKA KUMARI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
11	2020/1782	ANSHU	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
12	2020/1764	ANUKRITI SHARMA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
13	2020/1846	ARUSHI GUPTA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
14	2020/532	ARZOO	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
15	2020/387	AVANTIKA CHAUHAN	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
16	2020/896	BISMITA DEKA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
17	2020/1193	CHANDERKALA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
18	2020/005	CHIPPY R C	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
19	2020/422	DEVANSHI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
20	2020/153	DEVYANI CHAUDHARY	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
21	2020/129	DISHA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
22	2020/269	FIZA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
23	2020/544	GARGI YADAV	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
24	2020/536	GRACE LEIYACHON JAGOI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
25	2020/662	ISHA MAHANTY	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
26	2020/18	JYOTI VARSHNEY	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
27	2020/693	JYOTI KUMARI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
28	2020/550	KRITIKA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
29	2020/152	KUMUD AGGARWAL	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
30	2020/1541	KUNGA WANGMO	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
31	2020/910	LAKPA DIKI SHERPA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
32	2020/842	LAKSHMI PRIYA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
33	2020/688	MAINA VISHNOI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
34	2020/252	MALINI ANIL	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
35	2020/1746	MEGHA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat



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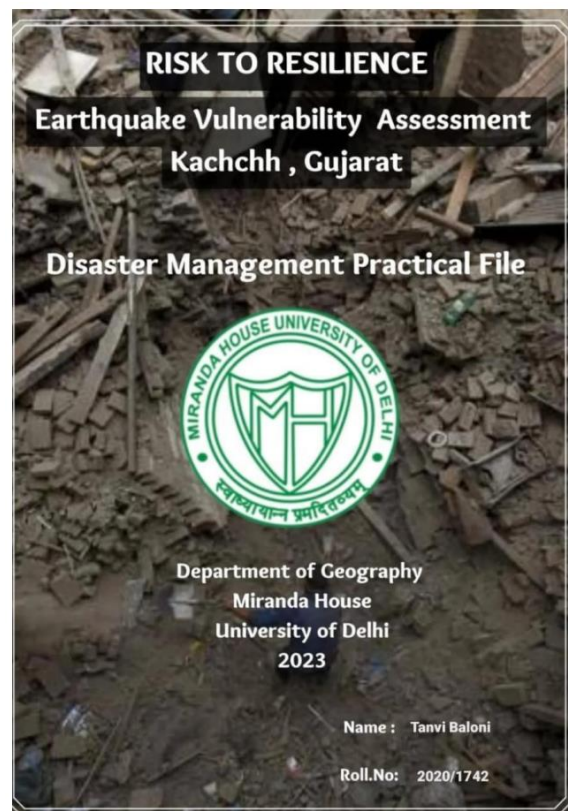
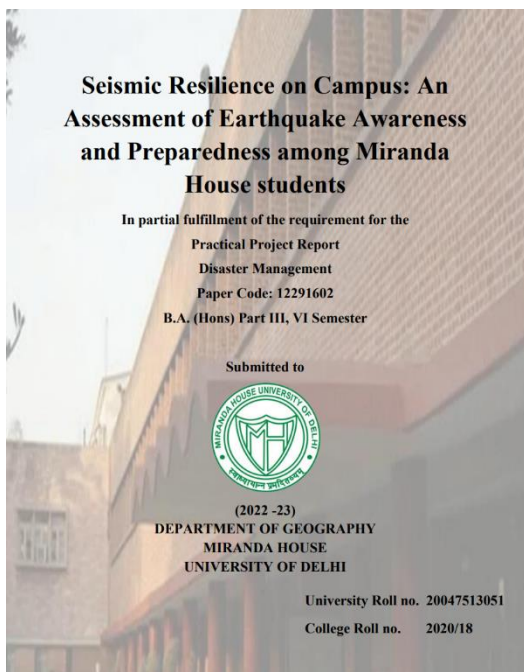
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36	2020/1746	MEGHA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
37	2020/268	MIMITA BISWAS	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
38	2020/216	NAMAMI MAHESHWARI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
39	2020/218	NAYANIKA KARAN	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
40	2020/32	NEEHARA P S	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
41	2020/62	NIKITA PATEL	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
42	2020/569	NIRJHARA SOGAN	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
43	2020/257	NISHA YADAV	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
44	2020/197	NITYA PUNIA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
45	2020/664	NUPUR	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
46	2020/919	OSHEEN	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
47	2020/1109	PIYANKA MANDAL	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
48	2020/14	POMPI KALITA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
49	2020/1819	PRAJNA PRIYADARSHINI ROUT	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
50	2020/108	PRAKRATI KUSHWAH	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
51	2020/003	PRAKRITI YADAV	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
52	2020/739	PREETI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
53	2020/001	PREETI KUMARI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
54	2020/721	PRITAM KUMARI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
55	2020/1680	RASHMI KUMARI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
56	2020/806	RATNA ` PRIYA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
57	2020/670	RIYA VERMA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
58	2020/15	SAUMYA TULSYAN	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
59	2020/681	SHAHZABI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
60	2020/941	SHEETAL CHOUDHARY	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
61	2020/317	SHILPEE SHUKLA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat



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62	2020/537	SONIYA	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
63	2020/998	SRISHTI JAISWAL	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
64	2020/1274	STANZIN LACHIK	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
65	2020/21	STANZIN ANGMO	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
66	2020/27	TANISHA MAZUMDER	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
67	2020/728	TANISHA BENIWAL	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
68	2020/1742	TANVI BALONI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
69	2020/1540	TENZIN YUODON	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
70	2020/67	VAISHALI TIWARI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
71	2020/67	VAISHALI TIWARI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
72	2020/1569	VAISHNAVI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
73	2020/105	VANSHIKA GOYAL	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
74	2020/134	VANSHIKA SINGH	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat
75	2020/706	VANSHIKA SONI	Risk to Resilience: Earthquake Vulnerability Assessment of Kachchh, Gujarat





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Part A.2

Students undertaking project work/field work/internship (beyond the requirements of coursework)

S.No.	Name	DSKC Project Title
1	ABANTIKA PAL	Micro-shed Delineation and Ecological Assessment
2	KULVINDER DAHIYA	Micro-shed Delineation and Ecological Assessment
3	MUSKAN	Micro-shed Delineation and Ecological Assessment
4	MAMTA BARIK	Micro-shed Delineation and Ecological Assessment
5	AKANKSHA	Micro-shed Delineation and Ecological Assessment
6	SHUHANA DUTTA GUPTA	Micro-shed Delineation and Ecological Assessment
7	JAYA KAMBOJ	Micro-shed Delineation and Ecological Assessment
8	PRERNA SINGH BOURA	Micro-shed Delineation and Ecological Assessment
9	VAISHNAVI SHARMA	Micro-shed Delineation and Ecological Assessment
10	BHAWNA	Micro-shed Delineation and Ecological Assessment
11	RENU KUMARI MAHTO	Micro-shed Delineation and Ecological Assessment
12	PRACHI VERMA	Micro-shed Delineation and Ecological Assessment
13	SHIVANI	Micro-shed Delineation and Ecological Assessment
14	SAKSHI PAL	Micro-shed Delineation and Ecological Assessment
15	RAJASHWI SAXENA	Micro-shed Delineation and Ecological Assessment
16	ASHLESHA PASSI	Micro-shed Delineation and Ecological Assessment
17	JYOTSNA YADAV	Micro-shed Delineation and Ecological Assessment
18	NEHA SINGH	Micro-shed Delineation and Ecological Assessment
19	APURVA	Micro-shed Delineation and Ecological Assessment
20	DIKSHANT	Micro-shed Delineation and Ecological Assessment
21	ADITI BALAYAN	Micro-shed Delineation and Ecological Assessment
22	KANIKA CHUNDAWAT	Micro-shed Delineation and Ecological Assessment
23	ANSHU KUMARI	Micro-shed Delineation and Ecological Assessment
24	DIMPLE	Micro-shed Delineation and Ecological Assessment
25	PIYUSH KALRA	Micro-shed Delineation and Ecological Assessment
26	NEHA YADAV	Micro-shed Delineation and Ecological Assessment
27	JYOTI VARSHNEY	Micro-shed Delineation and Ecological Assessment
28	SWATI SINGH	Micro-shed Delineation and Ecological Assessment
29	LAKSHAY DAHIYA	Micro-shed Delineation and Ecological Assessment
30	DEEKSHA BHANDARI	Micro-shed Delineation and Ecological Assessment
31	SNEHA RAJ	Micro-shed Delineation and Ecological Assessment
32	POONAM	Micro-shed Delineation and Ecological Assessment
33	SURAJ KUMAR	Micro-shed Delineation and Ecological Assessment
34	MANASWI KULAHARA	Micro-shed Delineation and Ecological Assessment
35	KAREENA SINGHANIA	Micro-shed Delineation and Ecological Assessment



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MICRO WATERSHED DELINEATION AND ECOLOGICAL WEIGHTAGE ASSESSMENT

JYOTSNA YADAV, DEPARTMENT OF GEOGRAPHY, MIRANDA HOUSE

INTRODUCTION


The watershed is a natural hydrological entity that covers a specific aerial expanse of land surface from which the rainfall runoff flows to a defined drain, channel, or river at any particular point. Proper delineation enables effective planning and implementation of sustainable practices to address environmental challenges. This watershed analysis has been done with Remote Sensing techniques.

AIMS AND OBJECTIVES

- To analyse the vegetation cover of Lower Subansiri with NDVI.
- To delineate and analyse macro watersheds and micro watersheds in the study area.

STUDY AREA

Lower Subansiri is a district located in the northeastern state of Arunachal Pradesh, India. It is situated in the central part of Arunachal Pradesh and is bordered by the Upper Subansiri district to the north, Papum Pare district to the south, and West Siang district to the west.



Administrative Divisions
Lower Subansiri, Arunachal Pradesh, 2011

Figure 1: Location of the Study Area

DATA SOURCE

The data of elevation has been obtained from SRTM30 Plus and satellite imagery has been obtained from USGS website using Landsat 8 OLI.

METHODS OF PHYSIOGRAPHIC ANALYSIS

Elevation Analysis using DEM:

To know the elevation situation, a Digital Elevation Model of the study area has been generated.




Figure 2: 3-D Digital Elevation Model

METHODS OF VEGETATION ANALYSIS

For vegetation analysis, NDVI i.e. Normalized Difference Vegetation Index has been used. The resulting NDVI values range from -1 to +1, with higher values indicating healthier and denser vegetation, and lower values representing non-vegetated or sparse vegetation areas.


$$NDVI = \frac{(NIR - Red)}{(NIR + Red)}$$


Figure 3: NDVI of Study Area

The amount of healthier vegetation in the study area is higher.

PROCESS OF DELINEATING WATERSHEDS

Various Macro and Micro watersheds have been delineated using the Upllope Area plugin. These watersheds generated are an estimated watersheds generated on the basis of slope of the study area.

MACRO AND MICRO WATERSHEDS

Overall, 4 macro watershed areas have been delineated on the basis of slope analysis in the study area which includes certain rivers such as-Kamala river, Kime river etc.

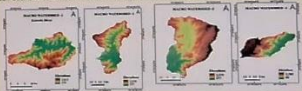


Figure 4: Macro Watersheds

A micro watershed, also known as a sub-watershed or mini watershed, is a small, localized geographical area that contributes to a larger river basin or watershed. They play a vital role in managing and distributing water resources within their limited areas.




Figure 5: Micro Watersheds

By micro Watershed Delineation, we demarcated 22 micro watersheds. These minor watersheds have been generated keeping in mind the strahler order upto 3.

RESULT AND INTERPRETATION

Lower Subansiri has a high density of vegetation.

From this Ecological Weightage Assessment, it can be observed that the the watersheds in the Northern part of Lower Subansiri surrounding Kamala River have high ecological weightage compared to the southern part having broken river streams.

Overall, through this research, we can easily analyse the vegetation situation of Lower Subansiri. We were able to demarcate the areas which are ecologically rich.




Figure 6: Ecological Weightage Assessment