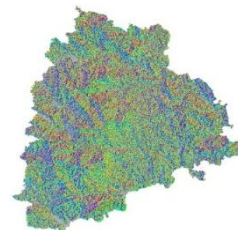
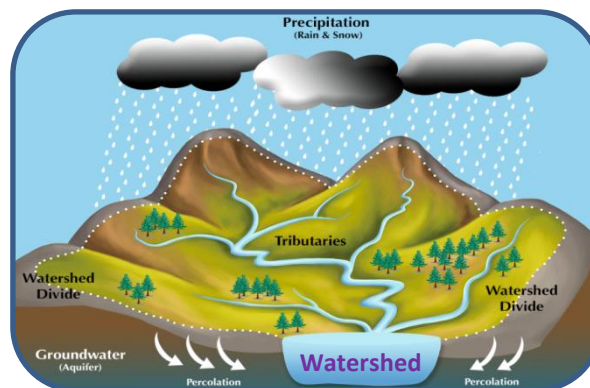


Government of Telangana – Forest Department



SITE SUITABILITY ANALYSIS FOR WATER HARVESTING STRUCTURES USING REMOTE SENSING & GIS

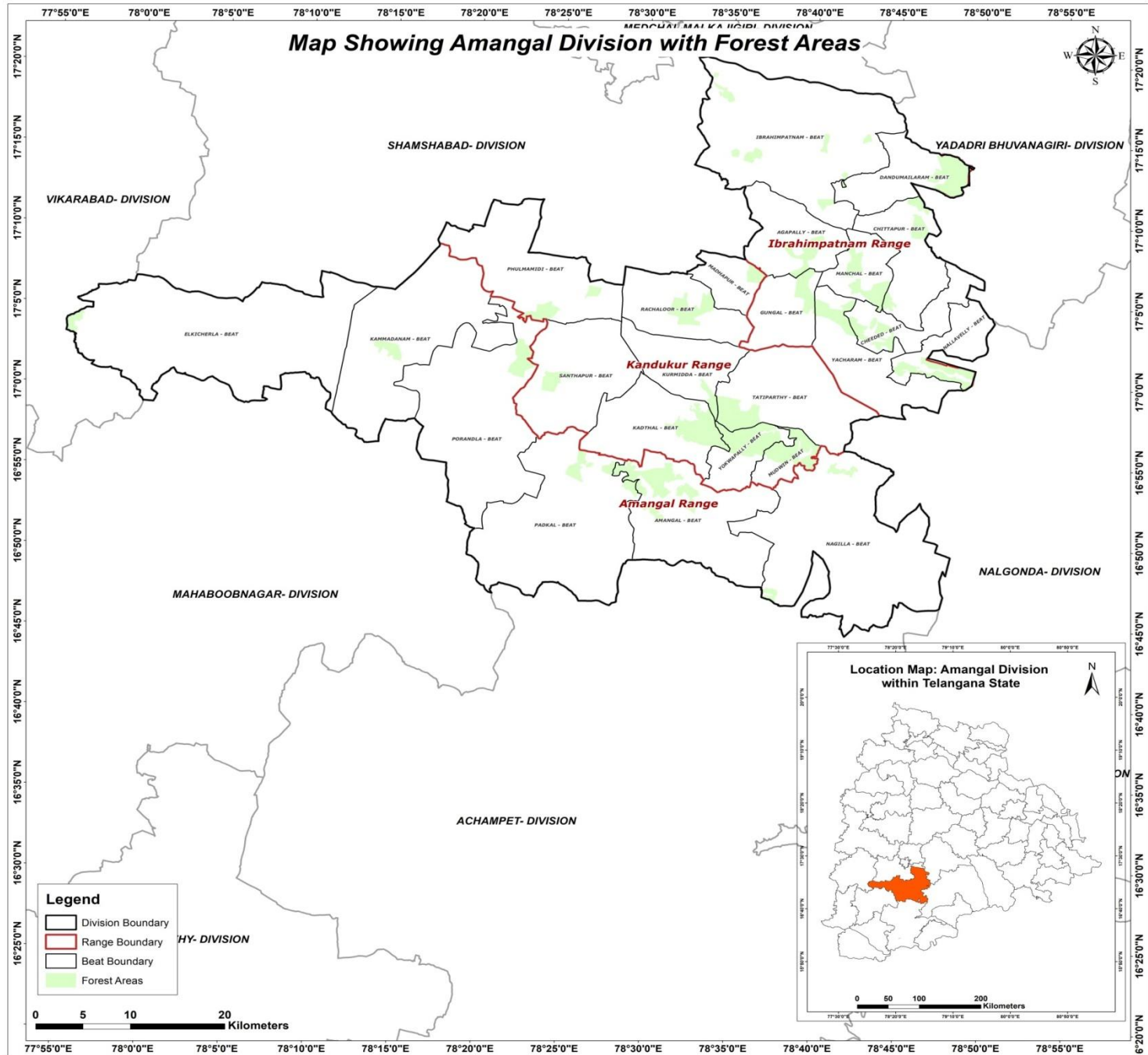


SITE SUITABILITY ANALYSIS FOR WATER HARVESTING STRUCTURES USING REMOTE SENSING & GIS

Circle: Charminar
District: Rangareddy
Division: Amangal

**Prepared at Geomatics Centre
O/o Prl.Chief Conservator of Forests
Aranya Bhavan, Saifabad
Hyderabad - 500004**

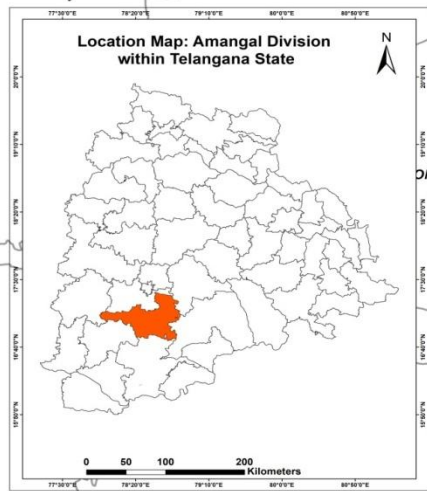
Map Showing Amangal Division with Forest Areas



Legend

- Division Boundary
- Range Boundary
- Beat Boundary
- Forest Areas

0 5 10 20 Kilometers



METHODOLOGY

Various methods are available to evaluate the suitability of locations for Percolation Tanks and other SMC structures using Arc GIS.

- A common approach is to use Geographic Information System (GIS) tools to decide the suitability by analysing factors like topography, vegetation density, distance to water sources, and terrain slope.
- Data was gathered from various sources, including the Raster Sentinel data obtained from the Copernicus open access hub.
- Elevation values were applied to the raster data using the SNAP software to create a Digital Elevation Model (DEM).
- Using Arc GIS, streams were mapped based on DEM, and potential percolation tank sites were identified based on stream order.
- Slope data generated from the CARTOSAT 30 m DEM (Source: Bhuvan) were also included in the analysis.
- By overlaying these spatial datasets and applying specific criteria, GIS can help identify optimal locations for building percolation tanks.
- Once the best location is identified, the catchment area is determined.
- The location is then ranked on the basis of catchment area and vegetation cover, with rankings ranging from I to V.



FLOW CHART FOR METHODOLOGY



Guidelines for building Percolation Tanks:

- Refer to the Site Suitability Map given by the GIS Cell for suitable locations
- Choose the best location for constructing a percolation tank based on the ranking priority. The priority for treatment of the watershed should be based on stream order, with primary streams taking precedence over secondary streams and secondary streams taking precedence over tertiary streams. This phased approach will ensure effective management of the watershed.
- Field conditions such as local climate, slope, vegetation and soil type must be considered when determining the location. It is important to move either upstream or downstream for a distance of about 50M, depending on the specific conditions of the site.
- It is essential to follow the priority given in the map. If no specific points are indicated, site suitability should be considered a determining factor.
- Encroached areas were not considered when demarcating points for constructing the Percolation tank.
- In the field, where streams are found at the optimal location, a percolation tank can be built if a point is missing on the map.
- The catchment area should also be considered when estimating the construction requirements like length of the bund, height of the bund, wear width etc., after verifying with the actual field conditions.
- Planting native vegetation around the tank can stabilize the soil, prevent erosion, and improve water absorption. Use plants that are well suited to the local environment.



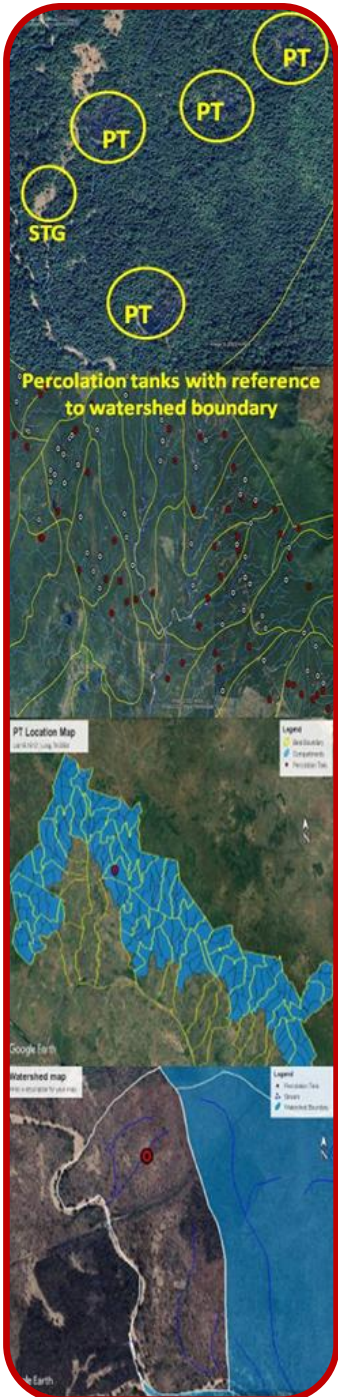
Suitability criteria for Check-Dams and Percolation Tanks (SITE SUITABILITY INDEX)

Index	Slope(Degrees)	Density Class
Highly suitable	0-5	Blank & Scrub
Moderately suitable	0-5	Open Forest
Least suitable	0-5	Dense Forest

Suitability criteria for Continuous/Staggered contour trenches

Rank	Slope classes (Degrees)	Density Classes
Highly Suitable	>5 and <= 10	Blanks
Moderately Suitable	>5 and <= 10	Scrub forest
Least suitable	>5 and <= 10	Open forest
	> 10 and < 25	Blanks & scrubs
MPTs and SGPs	>5 and <= 10	Dense Forest
	> 10 and < 25	Open and Dense forest





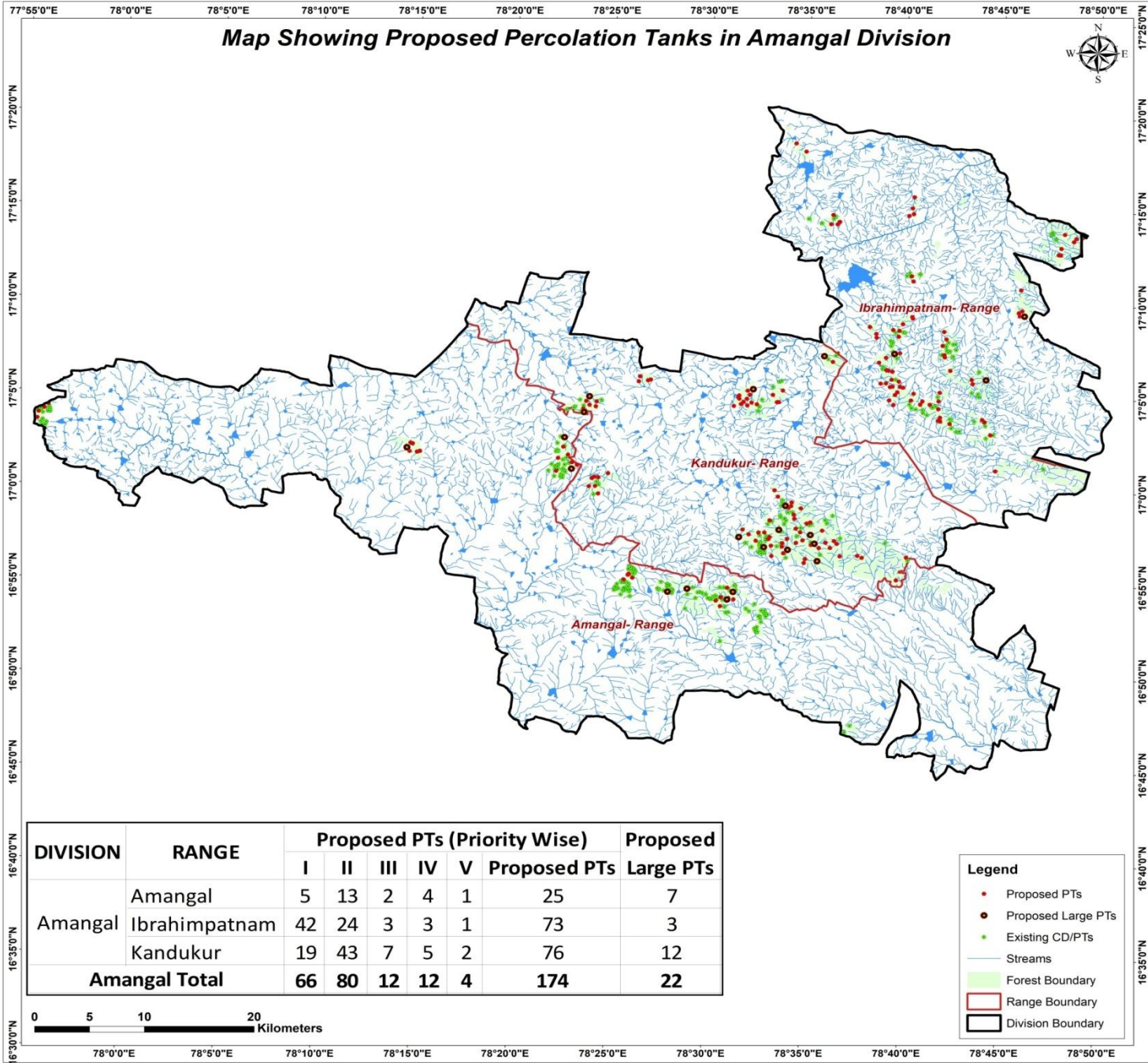
PRIORITY CLASSES FOR PERCOLATION TANK

Priority	Catchment Area(Ha)	Density Class
1	0-25 0-25	Scrub Blank
2	0-25 25-50	Open Forest Blank
3	25-50 >50	Open Forest Scrub & blank
4	0-25 >50	Dense Forest Open Forest
5	25-50 >50	Dense Forest Dense Forest





Map Showing Proposed Percolation Tanks in Amangal Division

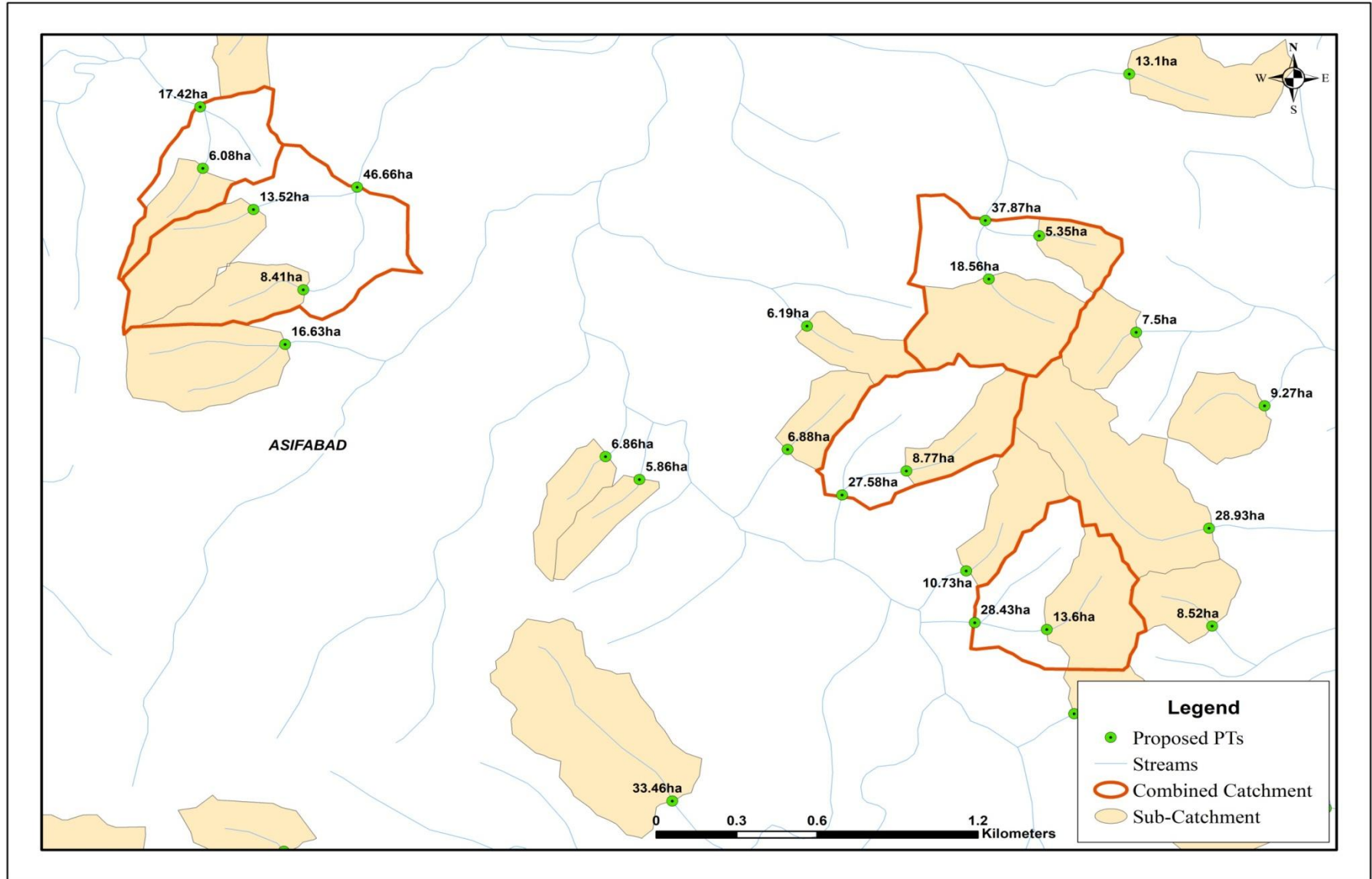


DIVISION	RANGE	Proposed PTs (Priority Wise)					Proposed PTs	Proposed Large PTs
		I	II	III	IV	V		
Amangal	Amangal	5	13	2	4	1	25	7
	Ibrahimpatnam	42	24	3	3	1	73	3
	Kandukur	19	43	7	5	2	76	12
Amangal Total		66	80	12	12	4	174	22

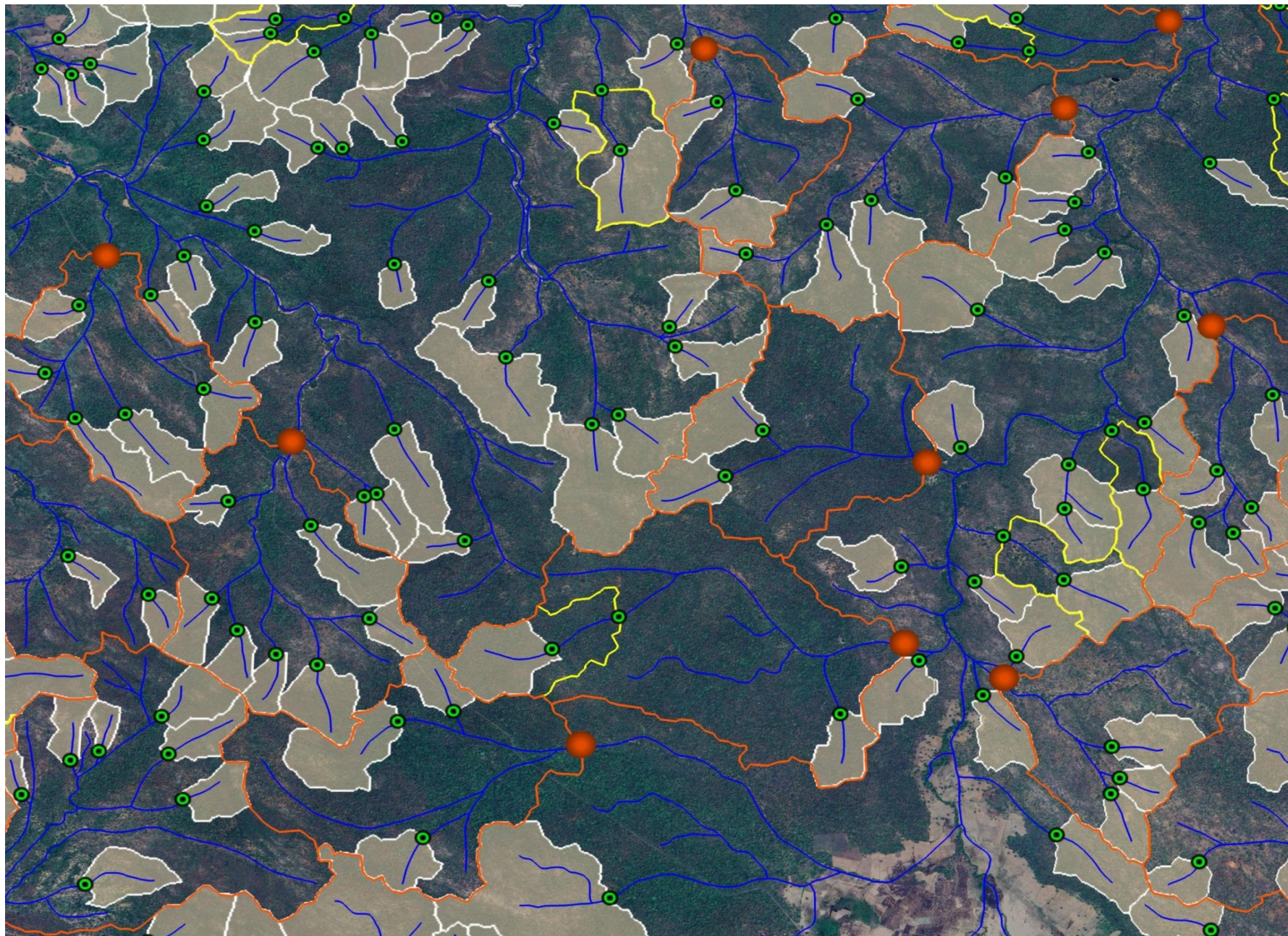
- Legend**
- Proposed PTs
 - Proposed Large PTs
 - Existing CD/PTs
 - Streams
 - Forest Boundary
 - Range Boundary
 - Division Boundary

0 5 10 20 Kilometers

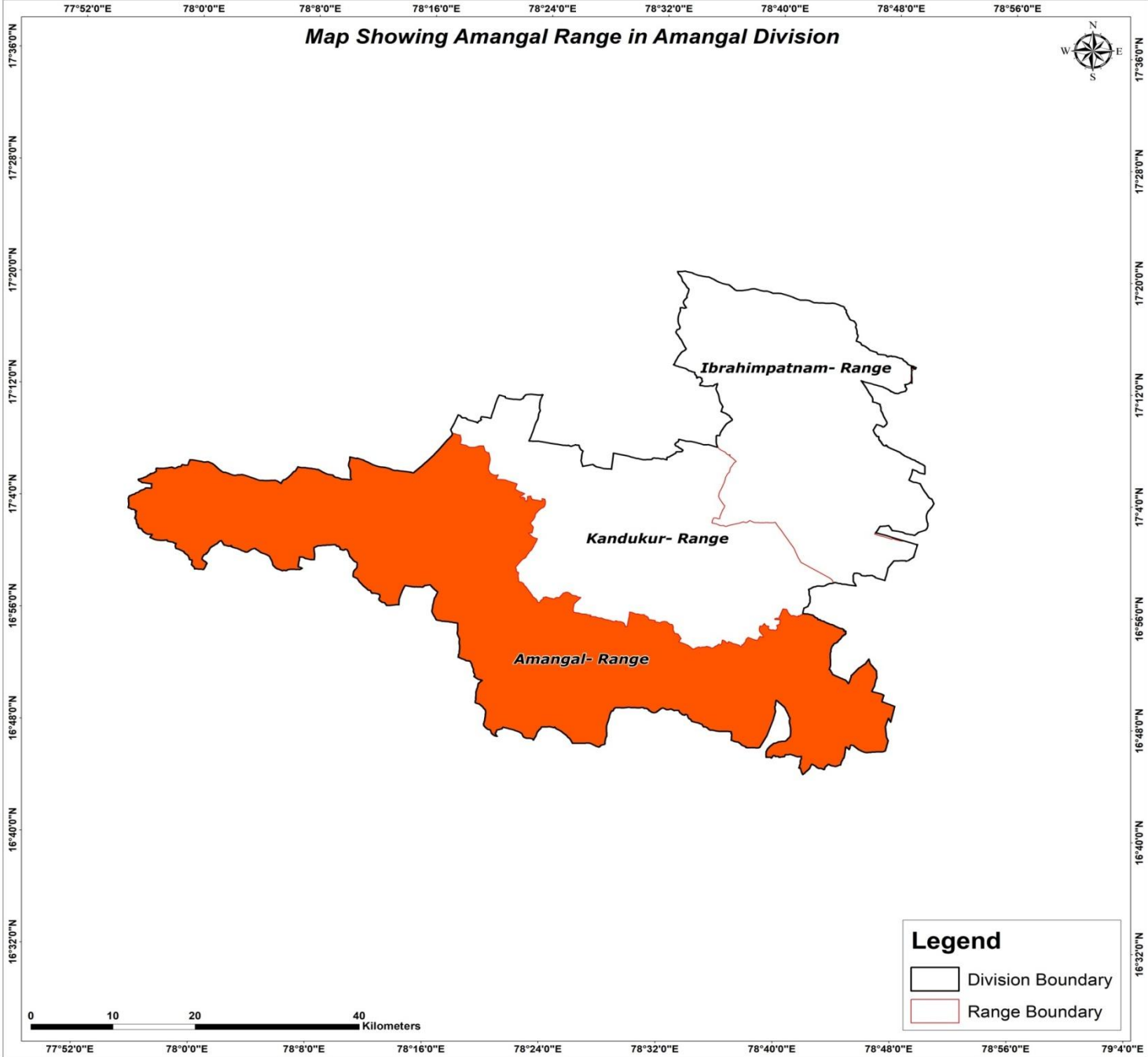
CATCHMENT AREA



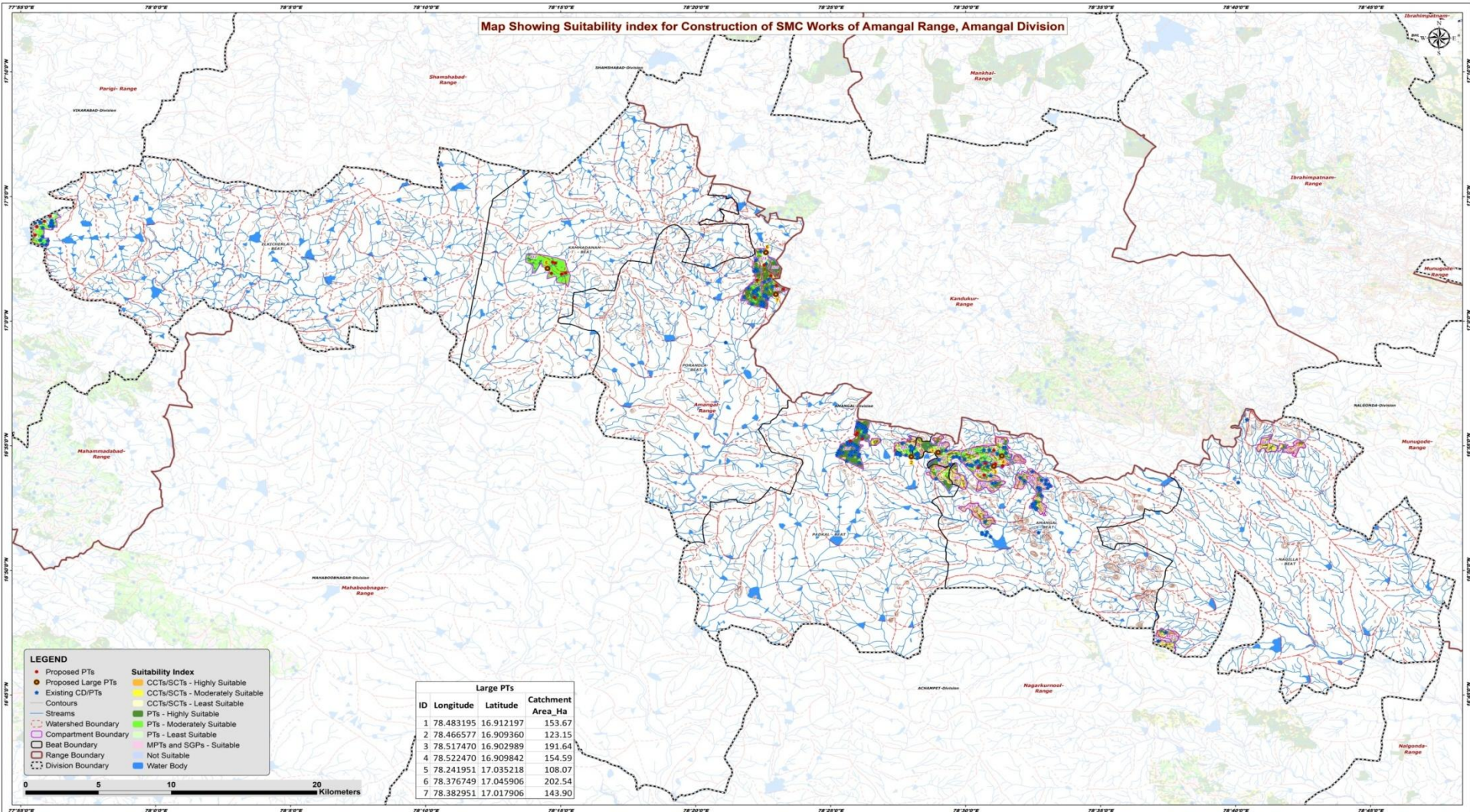
Sample Catchment Map



Map Showing Amangal Range in Amangal Division



Map Showing Suitability index for Construction of SMC Works of Amangal Range, Amangal Division

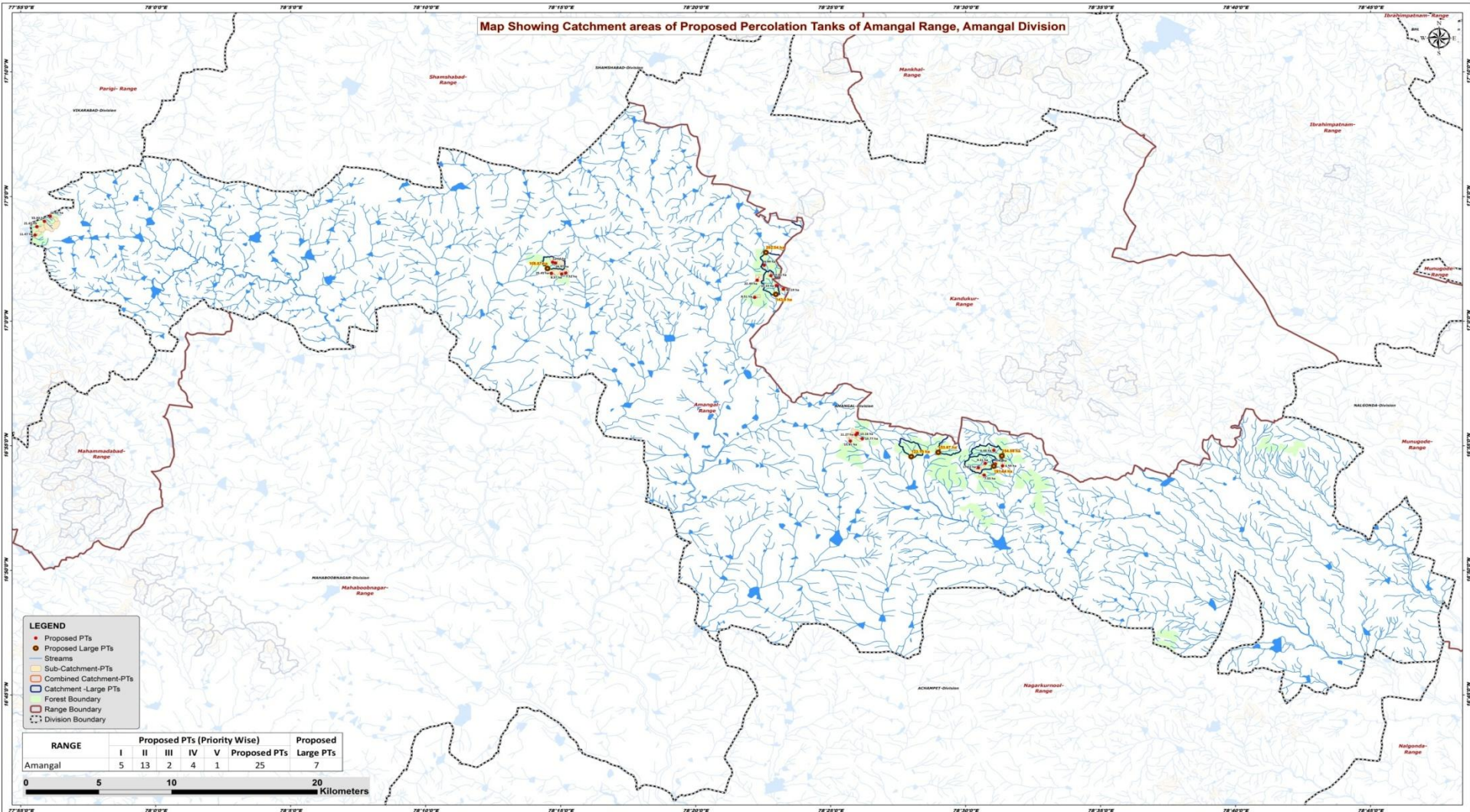


- LEGEND**
- Proposed PTs
 - Existing Large PTs
 - Existing CD/PTs
 - Contours
 - Streams
 - Watershed Boundary
 - Compartment Boundary
 - Beat Boundary
 - Range Boundary
 - Division Boundary

- Suitability Index**
- CCTs/SCTs - Highly Suitable
 - CCTs/SCTs - Moderately Suitable
 - CCTs/SCTs - Least Suitable
 - PTs - Highly Suitable
 - PTs - Moderately Suitable
 - PTs - Least Suitable
 - MPTs and SGPs - Suitable
 - Not Suitable
 - Water Body

Large PTs			
ID	Longitude	Latitude	Catchment Area_Ha
1	78.483195	16.912197	153.67
2	78.466577	16.909360	123.15
3	78.517470	16.902989	191.64
4	78.522470	16.909842	154.59
5	78.241951	17.035218	108.07
6	78.376749	17.045906	202.54
7	78.382951	17.017906	143.90

Map Showing Catchment areas of Proposed Percolation Tanks of Amangal Range, Amangal Division



- LEGEND**
- Proposed PTs
 - Proposed Large PTs
 - Streams
 - Sub-Catchment-PTs
 - Combined Catchment-PTs
 - Catchment -Large PTs
 - Forest Boundary
 - Range Boundary
 - Division Boundary

RANGE	Proposed PTs (Priority Wise)					Proposed PTs	Proposed Large PTs
	I	II	III	IV	V		
Amangal	5	13	2	4	1	25	7



Beat wise Abstract of Proposed PT's – Amangal Range

S. No.	Beat	Proposed PT's
1	AMANGAL	6
2	ELKICHERLA	4
3	KAMMADANAM	5
4	PADKAL	4
5	PORANDLA	6
	Total	25

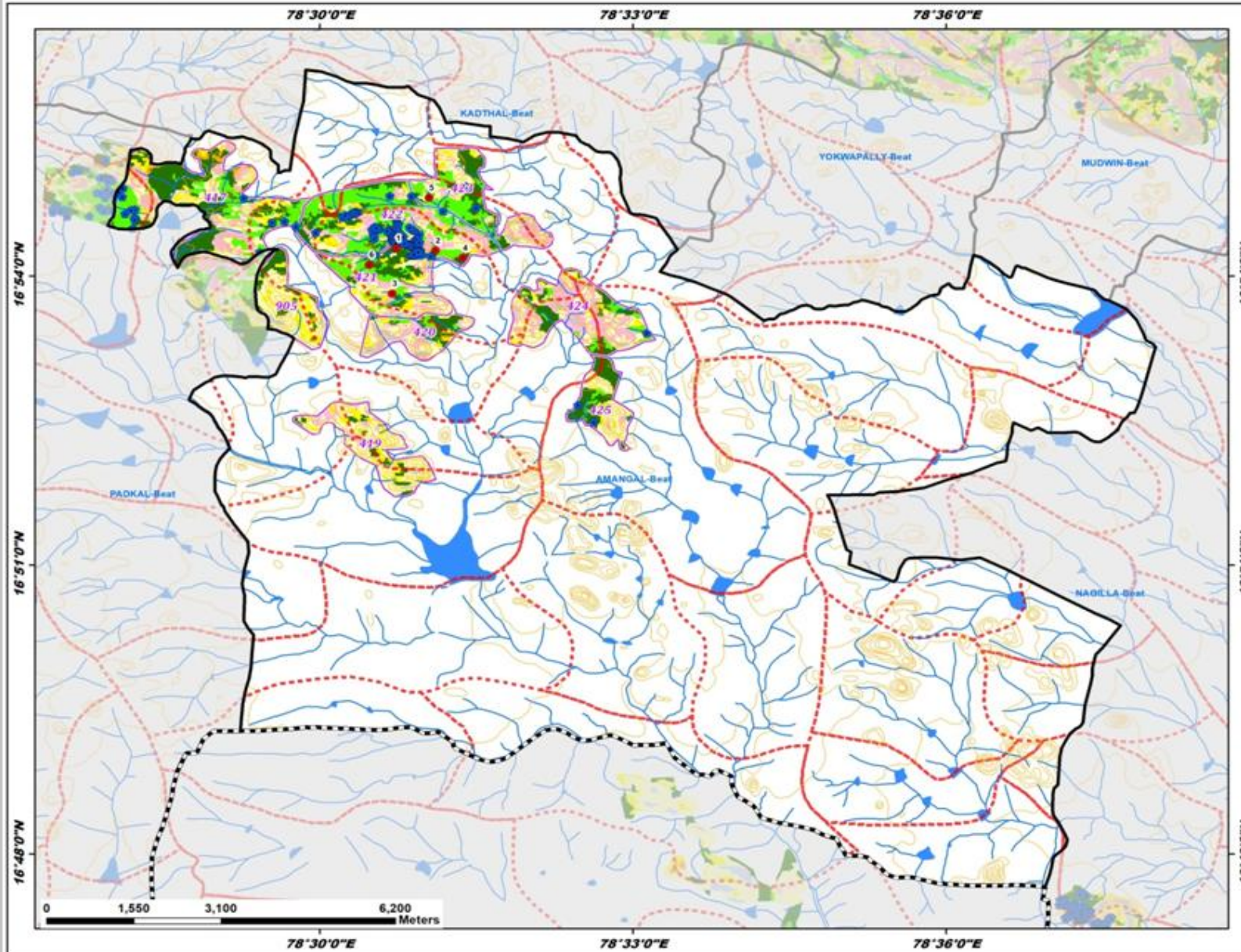
List of Proposed PTs – Amangal Range

ID	Latitude	Longitude	Catchment Area_Ha	Priority	Beat
1	16.904805	78.512226	9.31	I	AMANGAL
2	16.904411	78.518513	7.45	II	AMANGAL
3	16.896966	78.511596	7.55	II	AMANGAL
4	16.903131	78.522894	6.59	II	AMANGAL
5	16.913537	78.517522	6.48	II	AMANGAL
6	16.901938	78.507970	17.22	II	AMANGAL
7	16.923970	78.432393	11.27	I	PADKAL
8	16.921343	78.436299	10.77	I	PADKAL
9	16.919747	78.428944	15.91	I	PADKAL
10	16.925043	78.433288	13.16	II	PADKAL
11	17.070165	77.934888	12.43	IV	ELKICHERLA
12	17.063127	77.926685	21.65	IV	ELKICHERLA
13	17.057559	77.925613	11.47	IV	ELKICHERLA
14	17.066714	77.931399	55.93	V	ELKICHERLA
15	17.032168	78.253233	7.52	II	KAMMADANAM
16	17.031456	78.250763	8.37	II	KAMMADANAM
17	17.039397	78.245115	12.44	II	KAMMADANAM
18	17.038787	78.246911	24.97	II	KAMMADANAM
19	17.031969	78.244330	25.45	III	KAMMADANAM
20	17.015855	78.369827	8.51	I	PORANDLA
21	17.027350	78.371422	22.49	II	PORANDLA
22	17.023731	78.383205	10.23	II	PORANDLA
23	17.030392	78.379897	10.81	II	PORANDLA
24	17.021373	78.387636	40.19	III	PORANDLA
25	17.037455	78.375762	6.99	IV	PORANDLA

Map Showing Suitability index for Construction of SMC Works of Amangal Beat



Division : Amangal
Range : Amangal



ID	Latitude	Longitude	Catchment Area_Ha	Priority
1	16.904805	78.512226	9.31	I
2	16.904411	78.518513	7.45	II
3	16.896966	78.511596	7.55	II
4	16.903131	78.522894	6.59	II
5	16.913537	78.517522	6.48	II
6	16.901938	78.507970	17.22	II

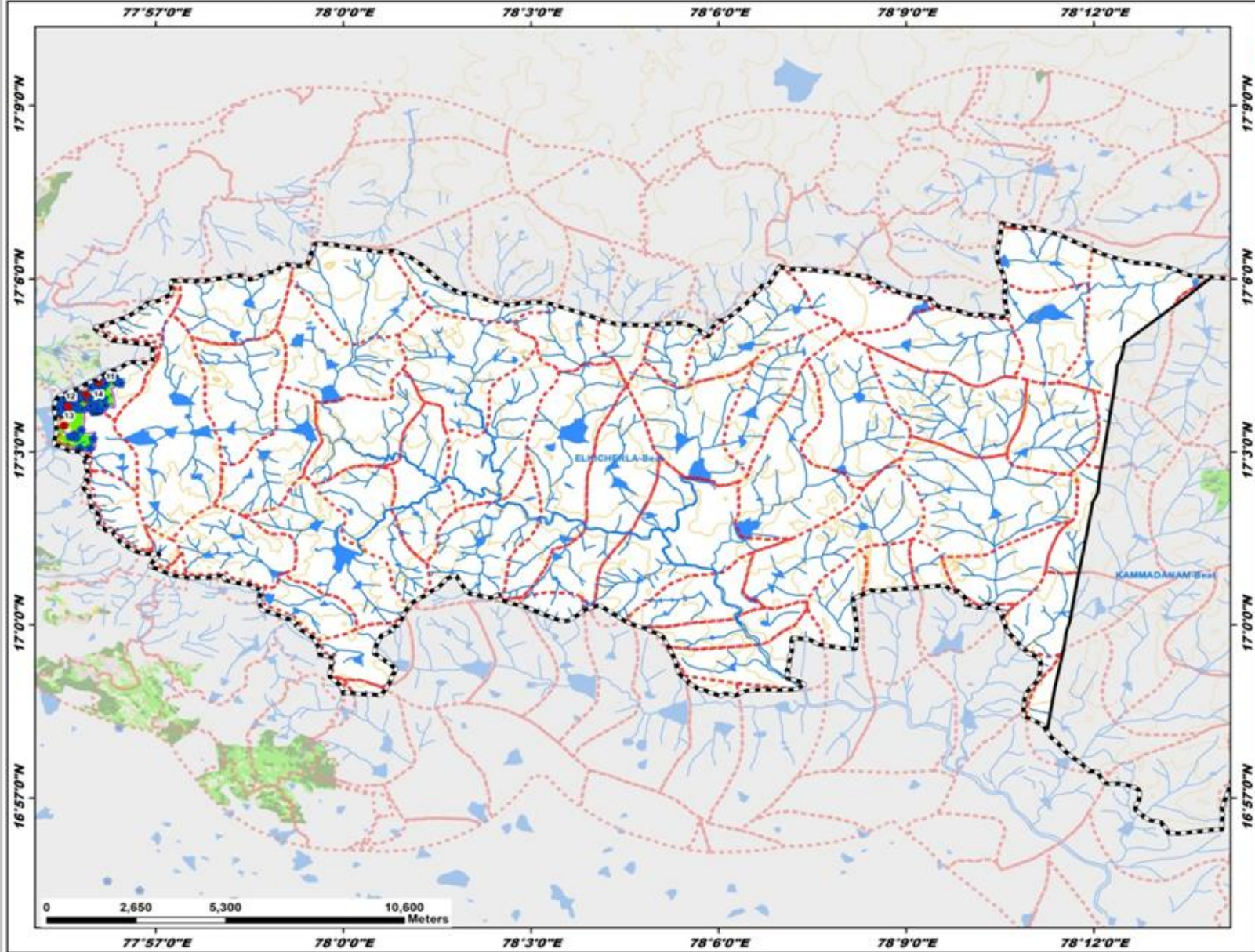
Legend

- Proposed_PTs
 - Existing CD/PTs
 - Contours
 - Streams
 - Watershed Boundary
 - Compartment Boundary
 - Beat Boundary
 - Division Boundary
- ### Suitability Index
- CCTs/SCTs - Highly Suitable
 - CCTs/SCTs - Moderately Suitable
 - CCTs/SCTs - Least Suitable
 - PTs - Highly Suitable
 - PTs - Moderately Suitable
 - PTs - Least Suitable
 - MPTs and SGP - Suitable
 - Not Suitable
 - Water Body

Map Showing Suitability index for Construction of SMC Works of Elkicherla Beat



Division : Amangal
Range : Amangal



ID	Latitude	Longitude	Catchment Area_Ha	Priority
11	17.070165	77.934888	12.43	IV
12	17.063127	77.926685	21.65	IV
13	17.057559	77.925613	11.47	IV
14	17.066714	77.931399	55.93	V

Legend

- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- - - Compartment Boundary
- - - Beat Boundary
- - - Division Boundary

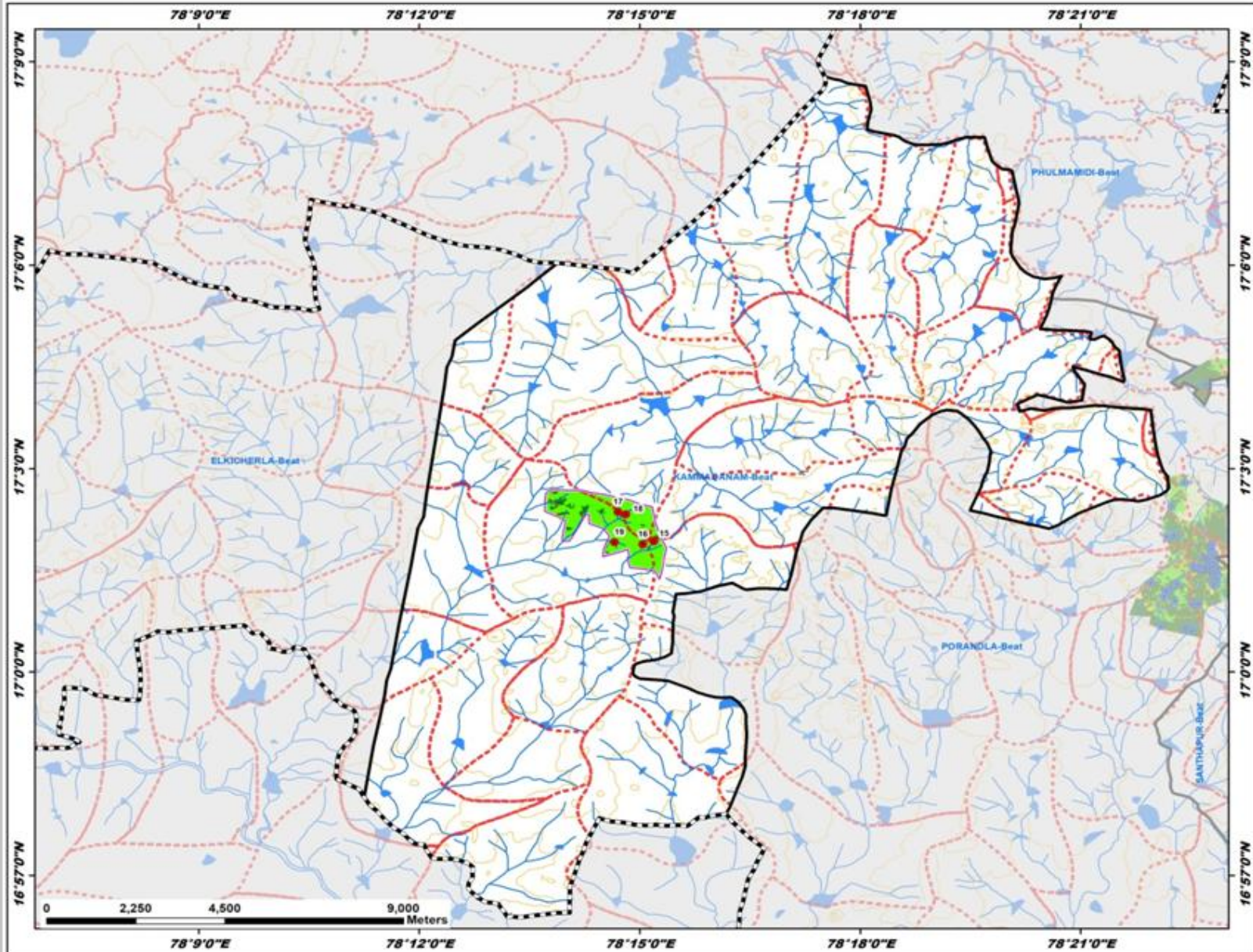
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGP - Suitable
- Not Suitable
- Water Body

Map Showing Suitability index for Construction of SMC Works of Kammadanam Beat



Division : Amangal
Range : Amangal



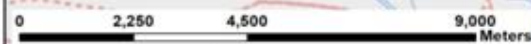
ID	Latitude	Longitude	Catchment Area_Ha	Priority
15	17.032168	78.253233	7.52	II
16	17.031456	78.250763	8.37	II
17	17.039397	78.245115	12.44	II
18	17.038787	78.246911	24.97	II
19	17.031969	78.244330	25.45	III

Legend

- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

Suitability Index

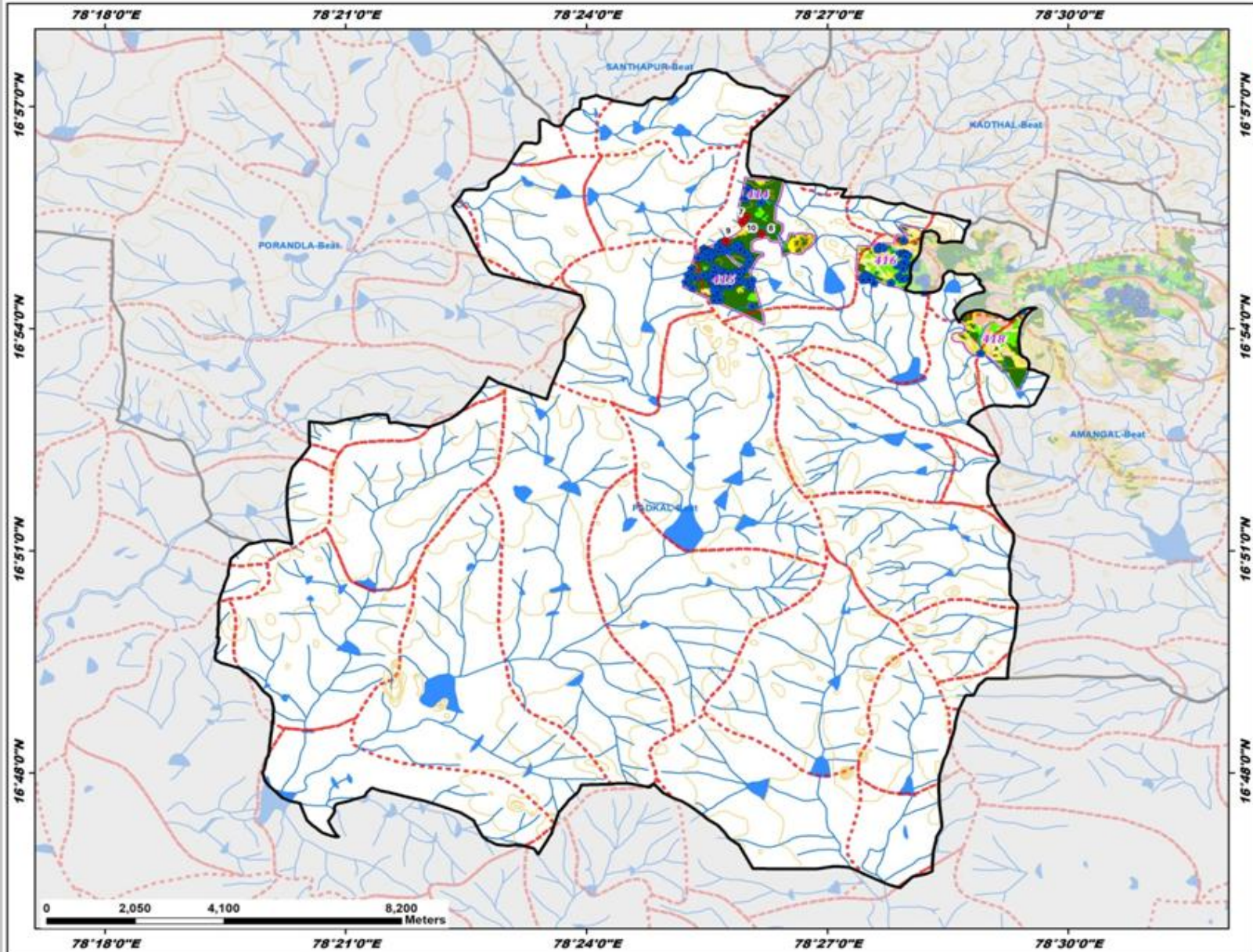
- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGP - Suitable
- Not Suitable
- Water Body



Map Showing Suitability index for Construction of SMC Works of Padkal Beat



Division : Amangal
Range : Amangal



ID	Latitude	Longitude	Catchment Area_Ha	Priority
7	16.923970	78.432393	11.27	I
8	16.921343	78.436299	10.77	I
9	16.919747	78.428944	15.91	I
10	16.925043	78.433288	13.16	II

Legend

- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary

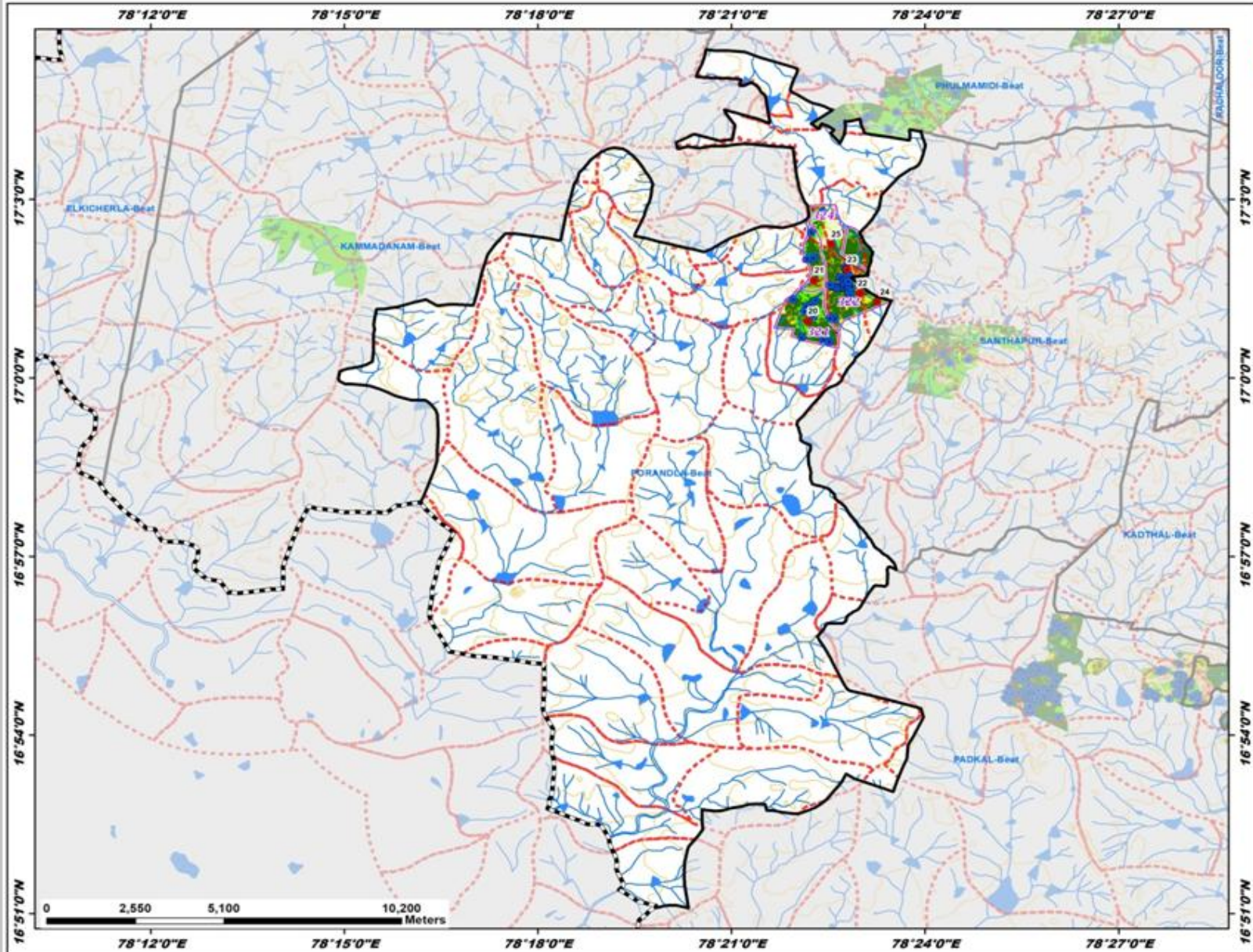
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

Map Showing Suitability index for Construction of SMC Works of Porandla Beat



Division : Amangal
Range : Amangal



ID	Latitude	Longitude	Catchment Area_Ha	Priority
20	17.015855	78.369827	8.51	I
21	17.027350	78.371422	22.49	II
22	17.023731	78.383205	10.23	II
23	17.030392	78.379897	10.81	II
24	17.021373	78.387636	40.19	III
25	17.037455	78.375762	6.99	IV

Legend

- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

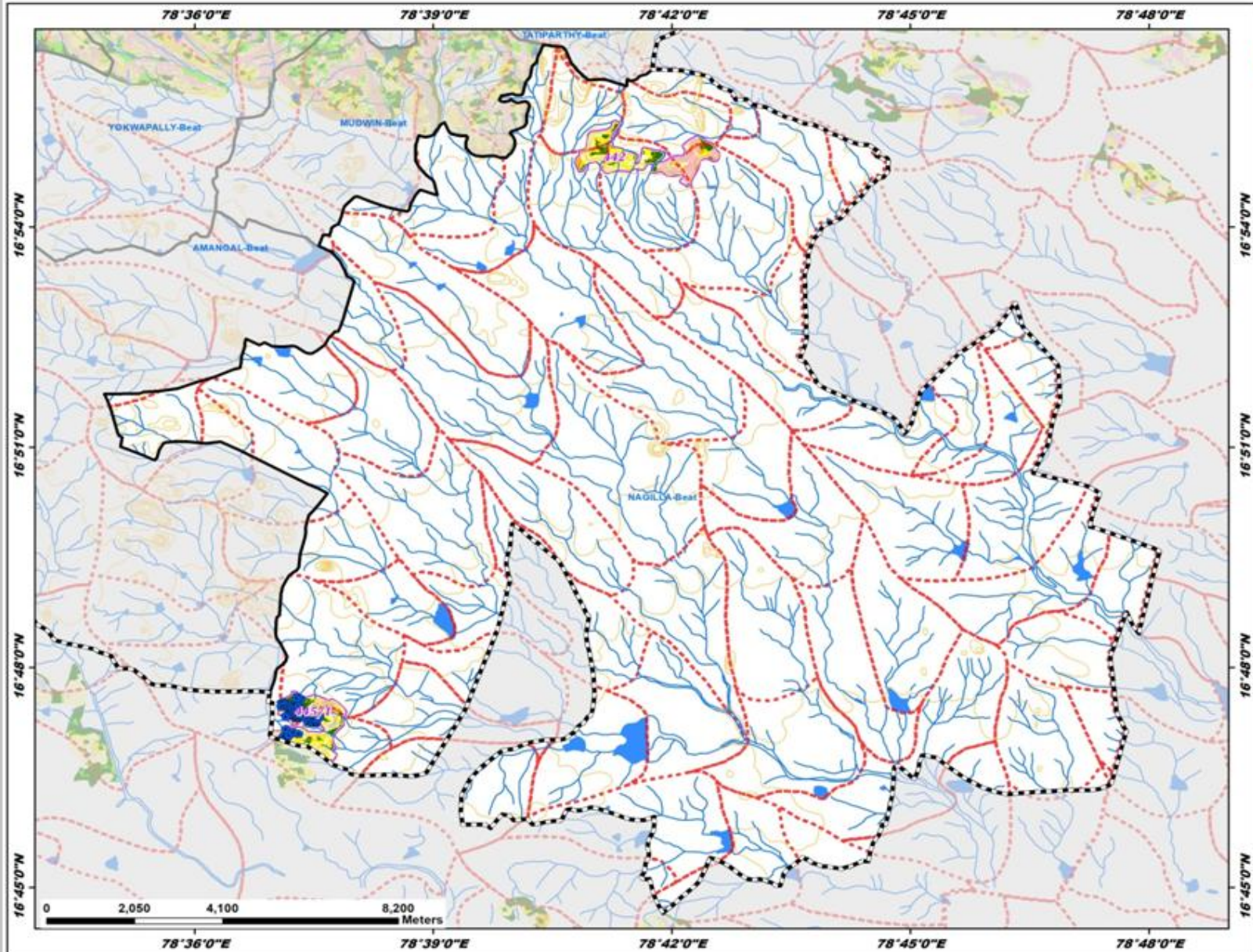
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGP - Suitable
- Not Suitable
- Water Body

Map Showing Suitability index for Construction of SMC Works of Nagilla Beat



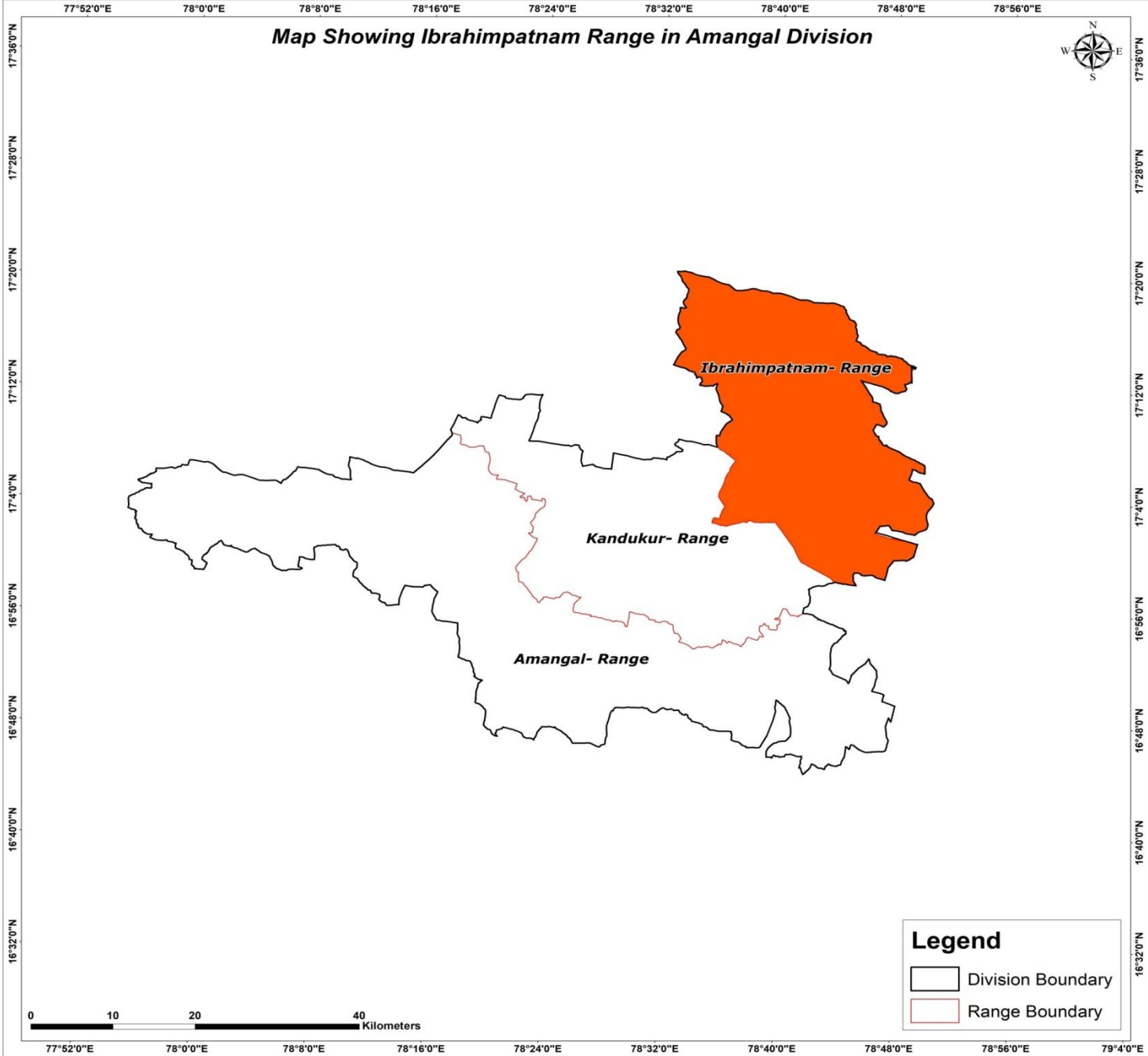
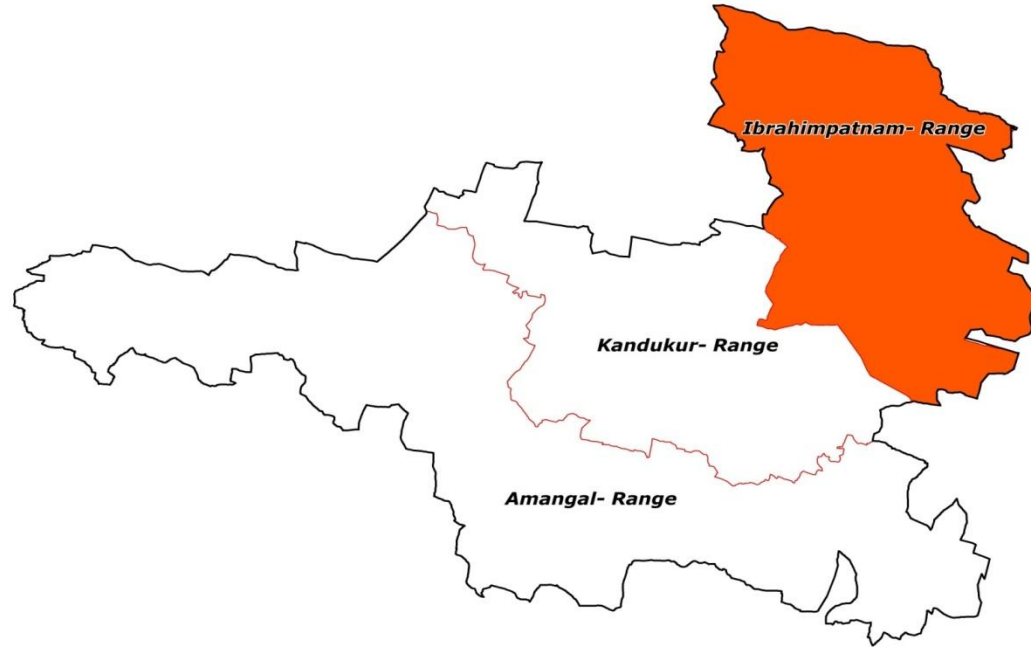
Division : Amangal
Range : Amangal



Legend

- Existing CD/PTs
 - Contours
 - Streams
 - Watershed Boundary
 - Compartment Boundary
 - Beat Boundary
 - Division Boundary
- ### Suitability Index
- CCTs/SCTs - Highly Suitable
 - CCTs/SCTs - Moderately Suitable
 - CCTs/SCTs - Least Suitable
 - PTs - Highly Suitable
 - PTs - Moderately Suitable
 - PTs - Least Suitable
 - MPTs and SGP - Suitable
 - Not Suitable
 - Water Body

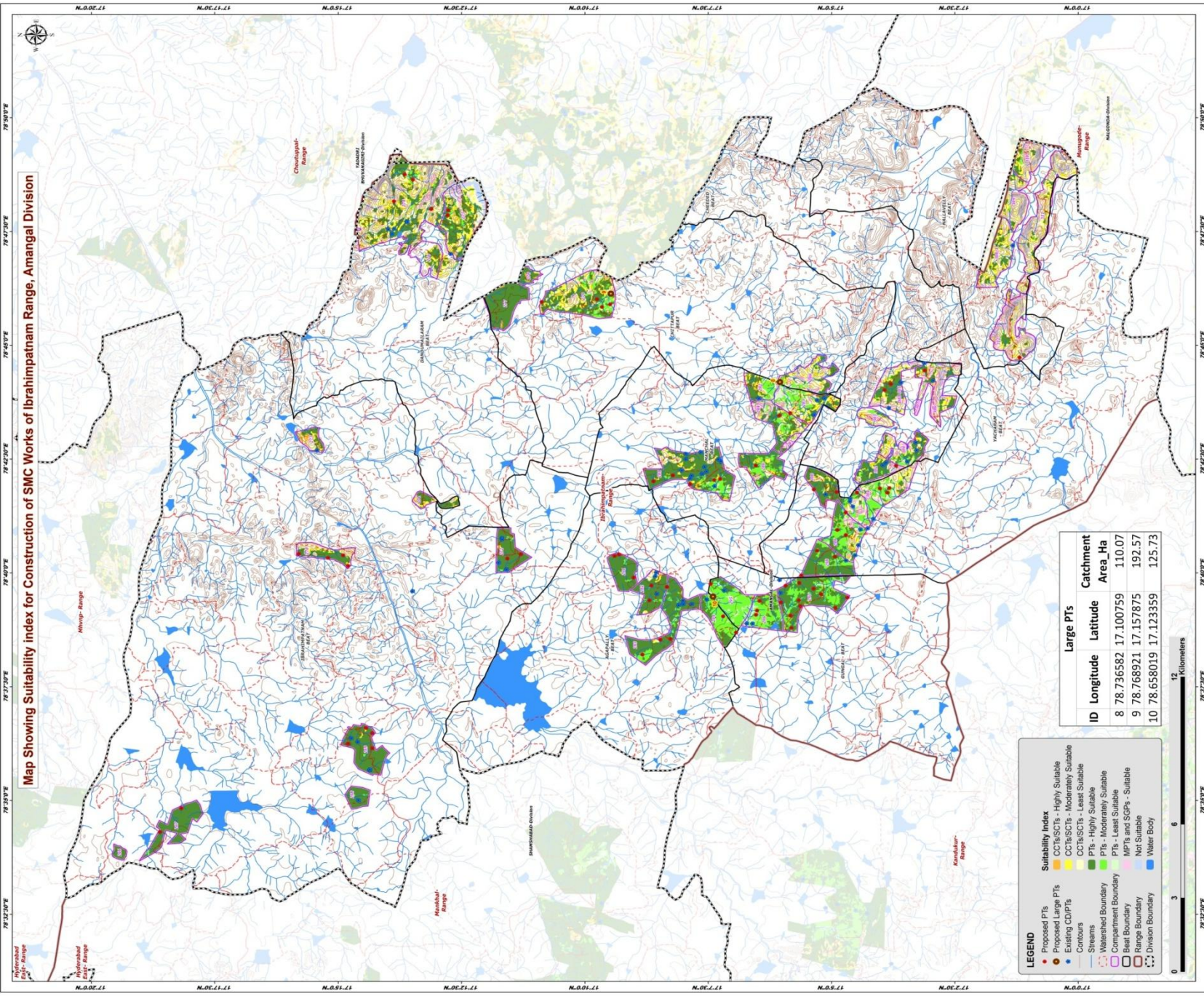
Map Showing Ibrahimpatnam Range in Amangal Division



Legend

- Division Boundary
- Range Boundary

Map Showing Suitability Index for Construction of SMC Works of Ibrahimpattam Range, Amangal Division



LEGEND

- Proposed PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Range Boundary
- Division Boundary

Suitability Index

- CCT/SCTs - Highly Suitable
- CCT/SCTs - Moderately Suitable
- CCT/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SCPs - Suitable
- Not Suitable
- Water Body

Large PTs		
ID	Longitude	Catchment Area Ha
8	78.736582	17,100,759
9	78.768921	17,115,785
10	78.658019	17,123,359



Map showing the suitability index for the construction of SMC Works in the Ibrahimpattam Range, Amangal Division. The map includes a grid of latitude and longitude coordinates. The legend defines the symbols and colors used for various features and suitability levels. The table provides specific data for three large PTs.

Beat wise Abstract of Proposed PT's – Ibrahimpatnam Range

S. No.	Beat	Proposed PT's
1	AGAPALLY	11
2	CHEEDED	4
3	CHITTAPUR	4
4	DANDUMAILARAM	6
5	GUNGAL	15
6	IBRAHIMPATNAM	12
7	MANCHAL	8
8	NALLAVELLY	1
9	YACHARAM	12
	Total	73

List of Proposed PTs – Ibrahimpatnam Range

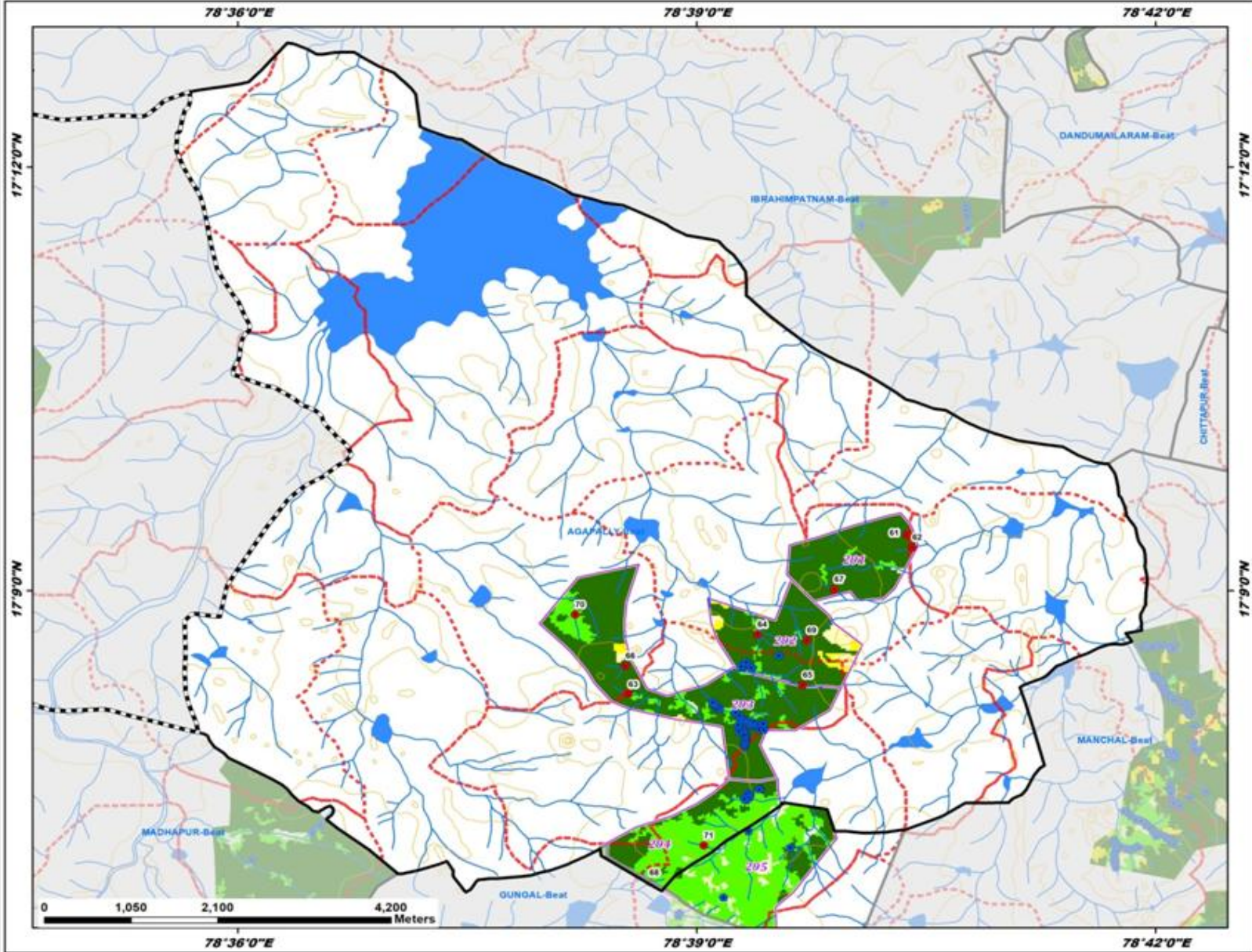
ID	Latitude	Longitude	Catchment Area_Ha	Priority	Beat
26	17.224738	78.810650	10.85	I	DANDUMAILARAM
27	17.218546	78.799924	6.85	I	DANDUMAILARAM
28	17.212812	78.799484	6.60	I	DANDUMAILARAM
29	17.227554	78.812591	19.26	I	DANDUMAILARAM
30	17.231145	78.802747	6.69	I	DANDUMAILARAM
31	17.212949	78.797643	18.98	I	DANDUMAILARAM
32	17.192856	78.671979	16.55	I	IBRAHIMPATNAM
33	17.188258	78.673583	11.98	I	IBRAHIMPATNAM
34	17.253398	78.672209	14.08	I	IBRAHIMPATNAM
35	17.238500	78.608042	10.63	I	IBRAHIMPATNAM
36	17.302987	78.580503	6.87	I	IBRAHIMPATNAM
37	17.263308	78.673655	5.58	I	IBRAHIMPATNAM
38	17.240611	78.609907	7.56	I	IBRAHIMPATNAM
39	17.248278	78.673133	6.08	I	IBRAHIMPATNAM
40	17.246671	78.604198	16.65	I	IBRAHIMPATNAM
41	17.246635	78.669254	25.52	II	IBRAHIMPATNAM
42	17.310180	78.571852	26.30	II	IBRAHIMPATNAM
43	17.238479	78.602486	53.32	III	IBRAHIMPATNAM
44	17.051852	78.740809	8.22	I	CHEEDED
45	17.063301	78.735832	7.30	I	CHEEDED
46	17.061560	78.705972	15.37	I	CHEEDED
47	17.065416	78.733629	16.64	I	CHEEDED
48	17.162536	78.766927	15.34	I	CHITTAPUR
49	17.181287	78.765913	8.66	I	CHITTAPUR
50	17.160870	78.764047	10.40	IV	CHITTAPUR
51	17.158115	78.765016	30.19	V	CHITTAPUR
52	17.108959	78.706035	13.35	I	MANCHAL
53	17.100963	78.724344	5.31	II	MANCHAL
54	17.122948	78.700710	6.55	II	MANCHAL
55	17.131071	78.699236	9.39	II	MANCHAL
56	17.136908	78.702429	36.40	II	MANCHAL
57	17.097287	78.725232	8.37	II	MANCHAL
58	17.143481	78.700249	26.00	II	MANCHAL
59	17.120938	78.701091	26.64	III	MANCHAL
60	17.019773	78.745542	18.49	I	NALLAVELLY
61	17.156603	78.672904	6.60	I	AGAPALLY
62	17.155129	78.673495	5.39	I	AGAPALLY
63	17.137781	78.642571	9.08	I	AGAPALLY
64	17.144866	78.656614	12.14	I	AGAPALLY
65	17.138890	78.661563	11.38	I	AGAPALLY

ID	Latitude	Longitude	Catchment Area_Ha	Priority	Beat
66	17.141137	78.642262	9.39	I	AGAPALLY
67	17.150169	78.665010	7.47	I	AGAPALLY
68	17.115560	78.644846	13.29	II	AGAPALLY
69	17.144187	78.662013	8.48	II	AGAPALLY
70	17.147203	78.636779	9.51	II	AGAPALLY
71	17.119941	78.650791	12.38	II	AGAPALLY
72	17.100466	78.655875	5.00	I	GUNGAL
73	17.096840	78.646540	12.22	I	GUNGAL
74	17.107661	78.656438	17.61	I	GUNGAL
75	17.077959	78.657642	8.60	I	GUNGAL
76	17.098855	78.662025	12.08	I	GUNGAL
77	17.093867	78.654560	6.96	I	GUNGAL
78	17.089392	78.660925	10.69	I	GUNGAL
79	17.097229	78.651052	6.97	I	GUNGAL
80	17.094231	78.663022	12.69	II	GUNGAL
81	17.081998	78.653896	9.31	II	GUNGAL
82	17.086873	78.658910	10.15	II	GUNGAL
83	17.094360	78.656678	15.20	II	GUNGAL
84	17.124196	78.662654	70.30	III	GUNGAL
85	17.108845	78.651385	9.54	IV	GUNGAL
86	17.108501	78.652947	12.38	IV	GUNGAL
87	17.093560	78.665753	13.54	I	YACHARAM
88	17.089292	78.697253	15.46	I	YACHARAM
89	17.081559	78.696296	7.78	I	YACHARAM
90	17.081354	78.682433	8.17	I	YACHARAM
91	17.078515	78.688845	6.02	II	YACHARAM
92	17.064363	78.696057	5.38	II	YACHARAM
93	17.088188	78.674805	11.18	II	YACHARAM
94	17.063773	78.697782	6.19	II	YACHARAM
95	17.082129	78.672656	13.37	II	YACHARAM
96	17.074710	78.696079	7.04	II	YACHARAM
97	17.066978	78.697623	9.26	II	YACHARAM
98	17.078517	78.680579	12.50	II	YACHARAM

Map Showing Suitability index for Construction of SMC Works of Agapally Beat



Division : Amangal
Range : Ibrahimpatnam



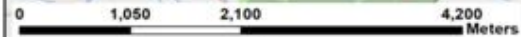
ID	Latitude	Longitude	Catchment Area Ha	Priority
61	17.156603	78.672904	6.60	I
62	17.155129	78.673495	5.39	I
63	17.137781	78.642571	9.08	I
64	17.144866	78.656614	12.14	I
65	17.138890	78.661563	11.38	I
66	17.141137	78.642262	9.39	I
67	17.150169	78.665010	7.47	I
68	17.115560	78.644846	13.29	II
69	17.144187	78.662013	8.48	II
70	17.147203	78.636779	9.51	II
71	17.119941	78.650791	12.38	II

Legend

- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

Suitability Index

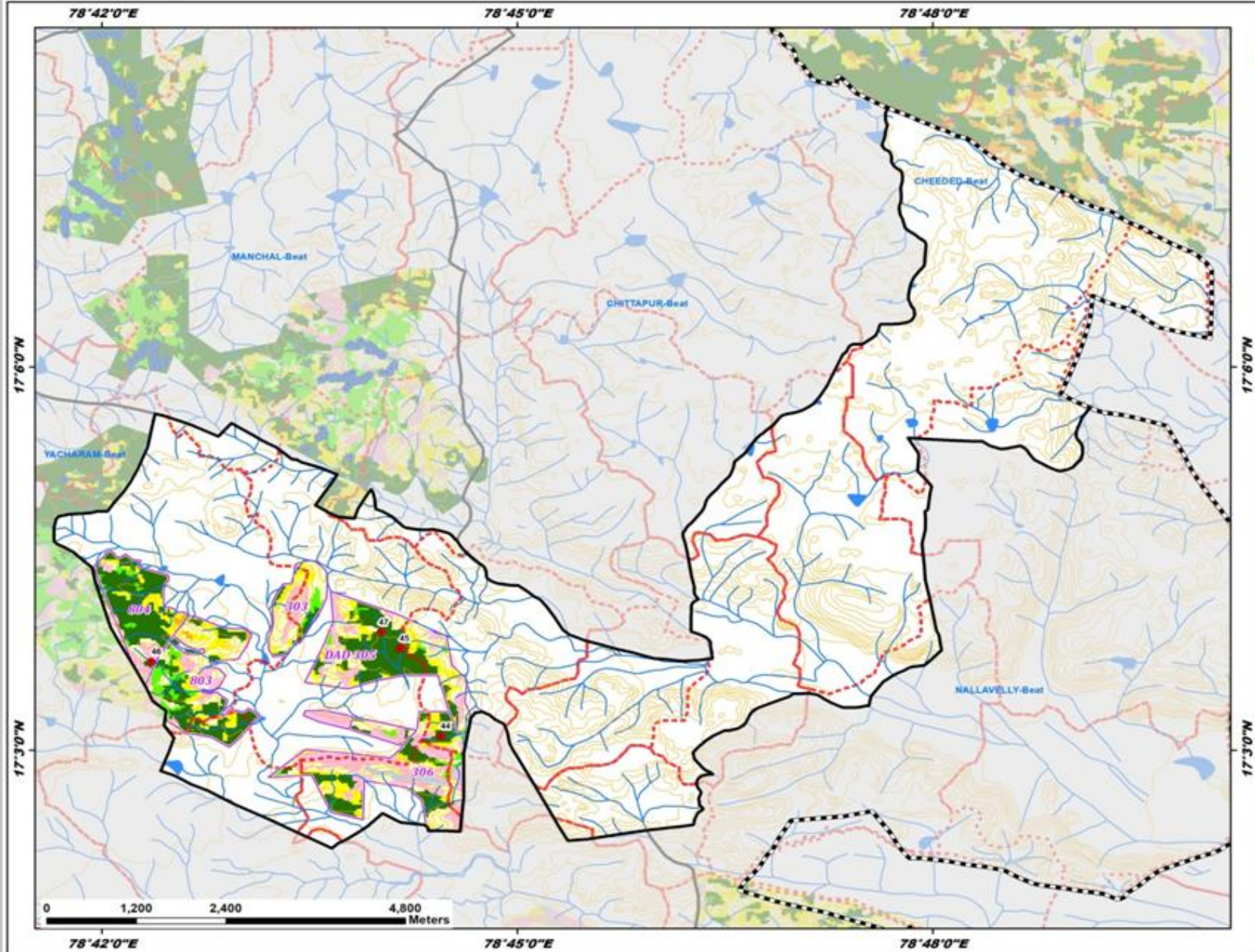
- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGP's - Suitable
- Not Suitable
- Water Body



Map Showing Suitability index for Construction of SMC Works of Cheeded Beat



Division : Amangal
Range : Ibrahimpatnam



ID	Latitude	Longitude	Catchment Area_Ha	Priority
44	17.051852	78.740809	8.22	I
45	17.063301	78.735832	7.30	I
46	17.061560	78.705972	15.37	I
47	17.065416	78.733629	16.64	I

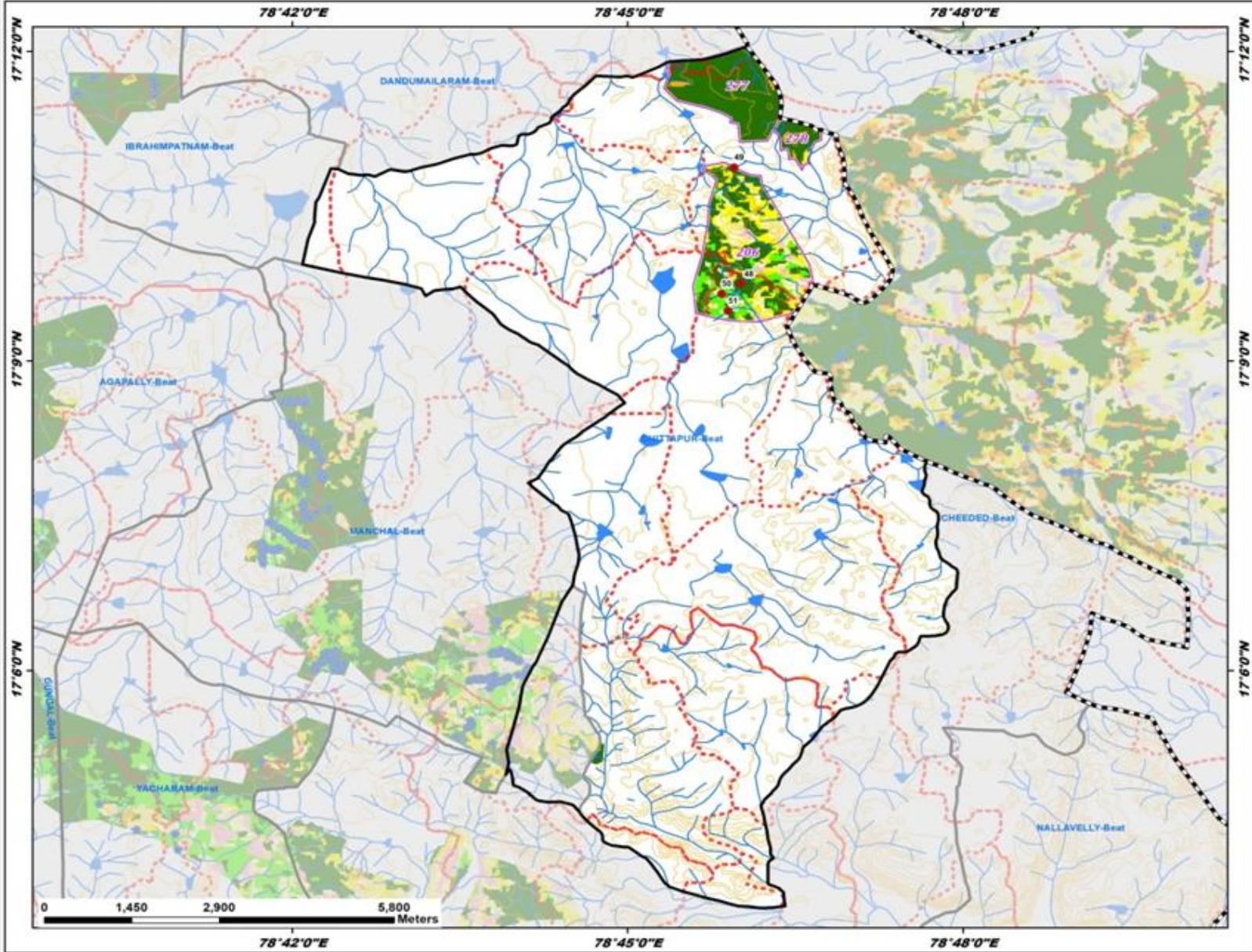
Legend

- Proposed_PTs
 - Existing CD/PTs
 - Contours
 - Streams
 - Watershed Boundary
 - Compartment Boundary
 - Beat Boundary
 - Division Boundary
- ### Suitability Index
- CCTs/SCTs - Highly Suitable
 - CCTs/SCTs - Moderately Suitable
 - CCTs/SCTs - Least Suitable
 - PTs - Highly Suitable
 - PTs - Moderately Suitable
 - PTs - Least Suitable
 - MPTs and SGP - Suitable
 - Not Suitable
 - Water Body

Map Showing Suitability index for Construction of SMC Works of Chittapur Beat



Division : Amangal
Range : Ibrahimpattanam



ID	Latitude	Longitude	Catchment Area_Ha	Priority
48	17.162536	78.766927	15.34	I
49	17.181287	78.765913	8.66	I
50	17.160870	78.764047	10.40	IV
51	17.158115	78.765016	30.19	V

Legend

- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

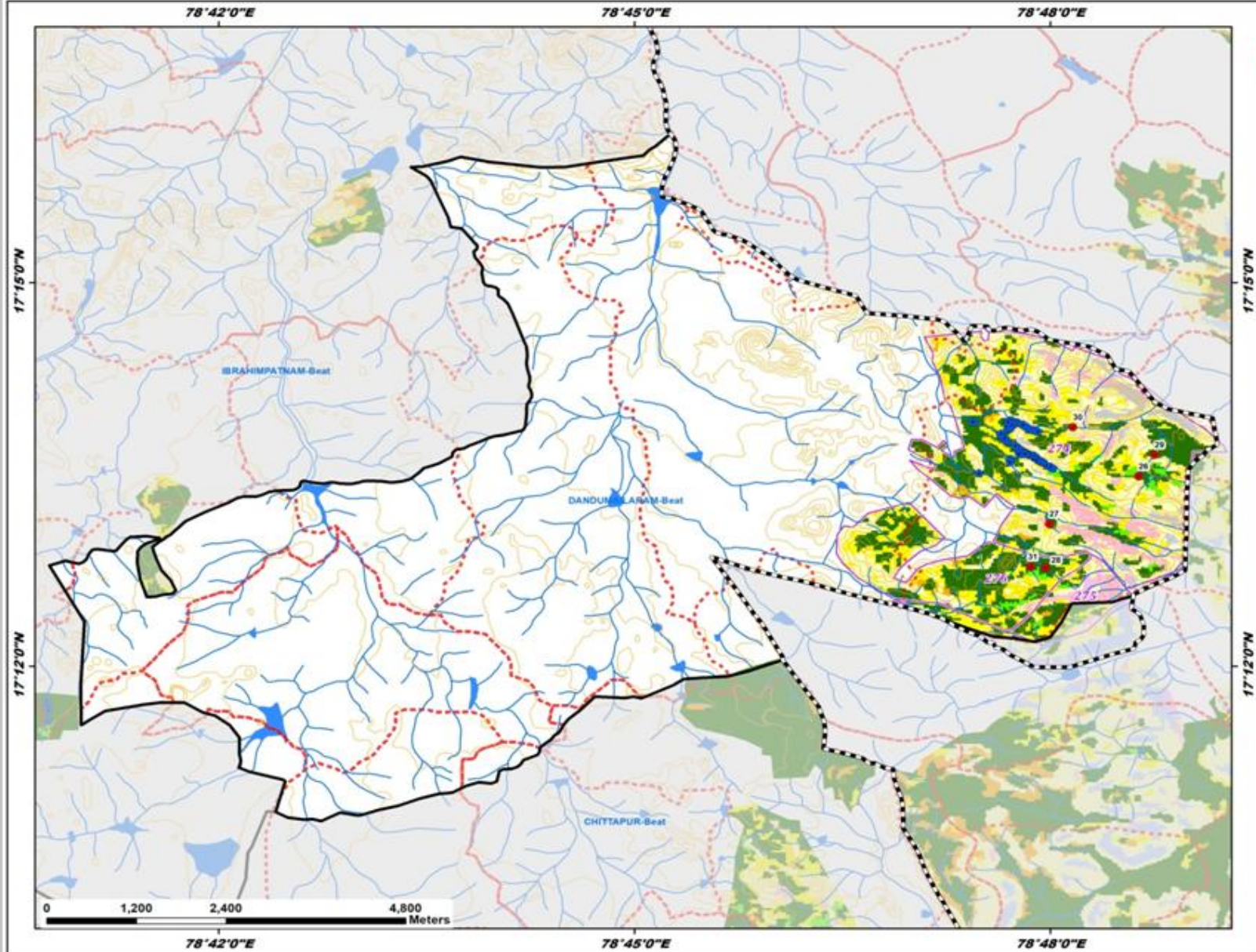
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

Map Showing Suitability index for Construction of SMC Works of Dandumailaram Beat



Division : Amangal
Range : Ibrahimpatnam



ID	Latitude	Longitude	Catchment Area_Ha	Priority
26	17.224738	78.810650	10.85	I
27	17.218546	78.799924	6.85	I
28	17.212812	78.799484	6.60	I
29	17.227554	78.812591	19.26	I
30	17.231145	78.802747	6.69	I
31	17.212949	78.797643	18.98	I

Legend

- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

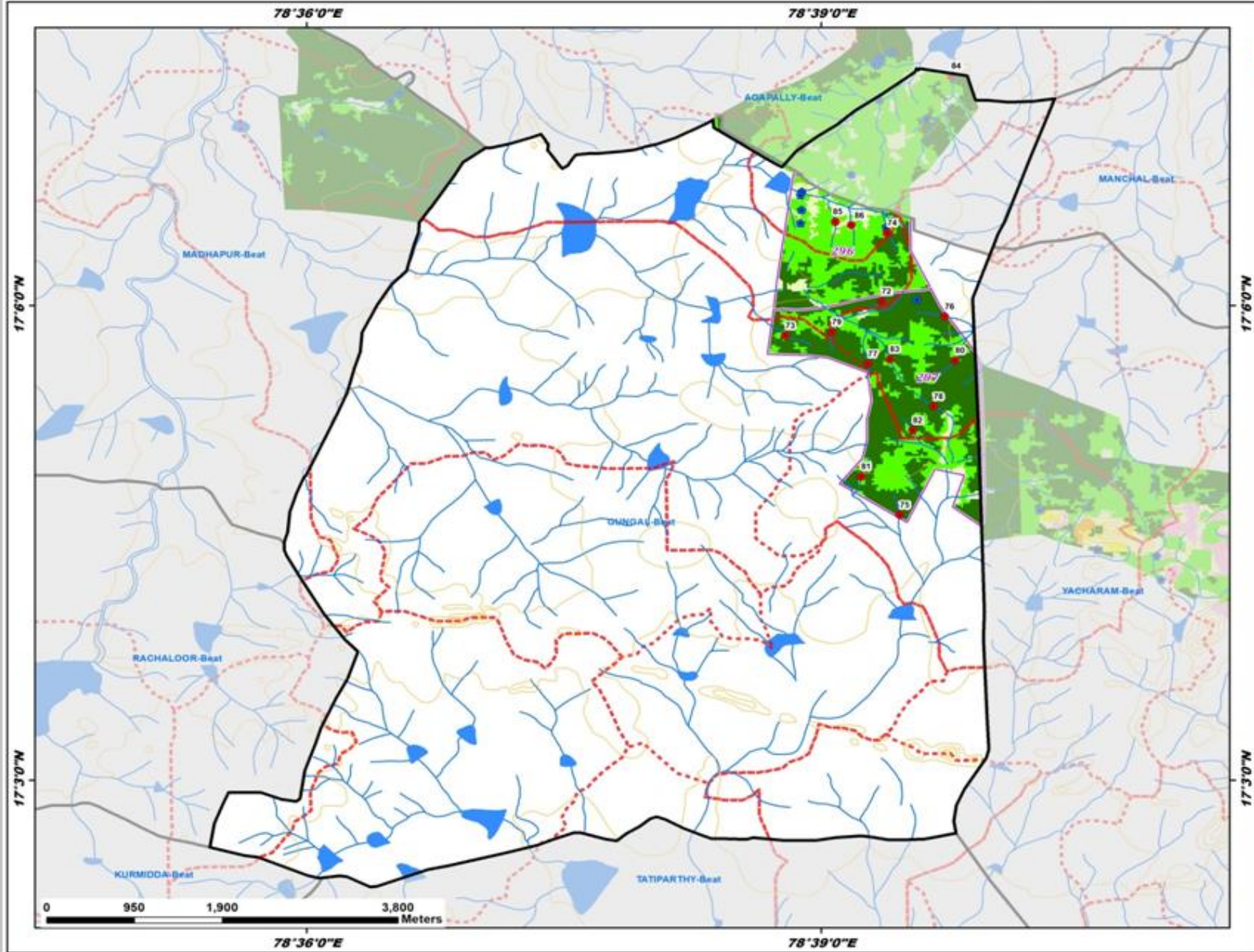
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGP - Suitable
- Not Suitable
- Water Body

Map Showing Suitability index for Construction of SMC Works of Gungal Beat



Division : Amangal
Range : Ibrahimpatnam



ID	Latitude	Longitude	Catchment Area_ha	Priority
72	17.100466	78.655875	5.00	I
73	17.096840	78.646540	12.22	I
74	17.107661	78.656438	17.61	I
75	17.077959	78.657642	8.60	I
76	17.098855	78.662025	12.08	I
77	17.093867	78.654560	6.96	I
78	17.089392	78.660925	10.69	I
79	17.097229	78.651052	6.97	I
80	17.094231	78.663022	12.69	II
81	17.081998	78.653896	9.31	II
82	17.086873	78.658910	10.15	II
83	17.094360	78.656678	15.20	II
84	17.124196	78.662654	70.30	III
85	17.108845	78.651385	9.54	IV
86	17.108501	78.652947	12.38	IV

Legend

- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- - - Compartment Boundary
- ▭ Beat Boundary
- - - Division Boundary

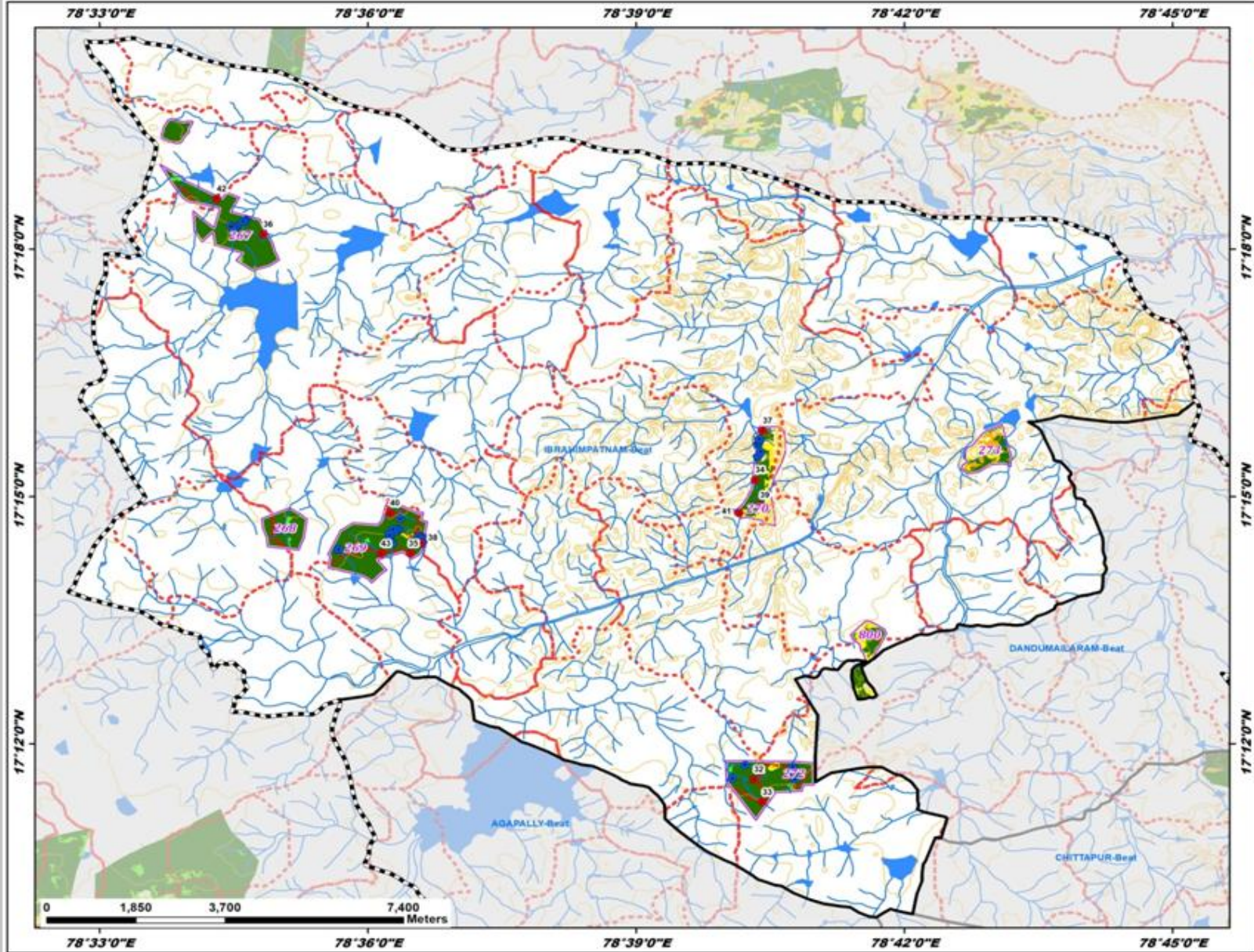
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGP - Suitable
- Not Suitable
- Water Body

Map Showing Suitability index for Construction of SMC Works of Ibrahimpatnam Beat



Division : Amangal
Range : Ibrahimpatnam



ID	Latitude	Longitude	Catchment Area_Ha	Priority
32	17.192856	78.671979	16.55	I
33	17.188258	78.673583	11.98	I
34	17.253398	78.672209	14.08	I
35	17.238500	78.608042	10.63	I
36	17.302987	78.580503	6.87	I
37	17.263308	78.673655	5.58	I
38	17.240611	78.609907	7.56	I
39	17.248278	78.673133	6.08	I
40	17.246671	78.604198	16.65	I
41	17.246635	78.609254	25.52	II
42	17.310180	78.571852	26.30	II
43	17.238479	78.602486	53.32	III

Legend

- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

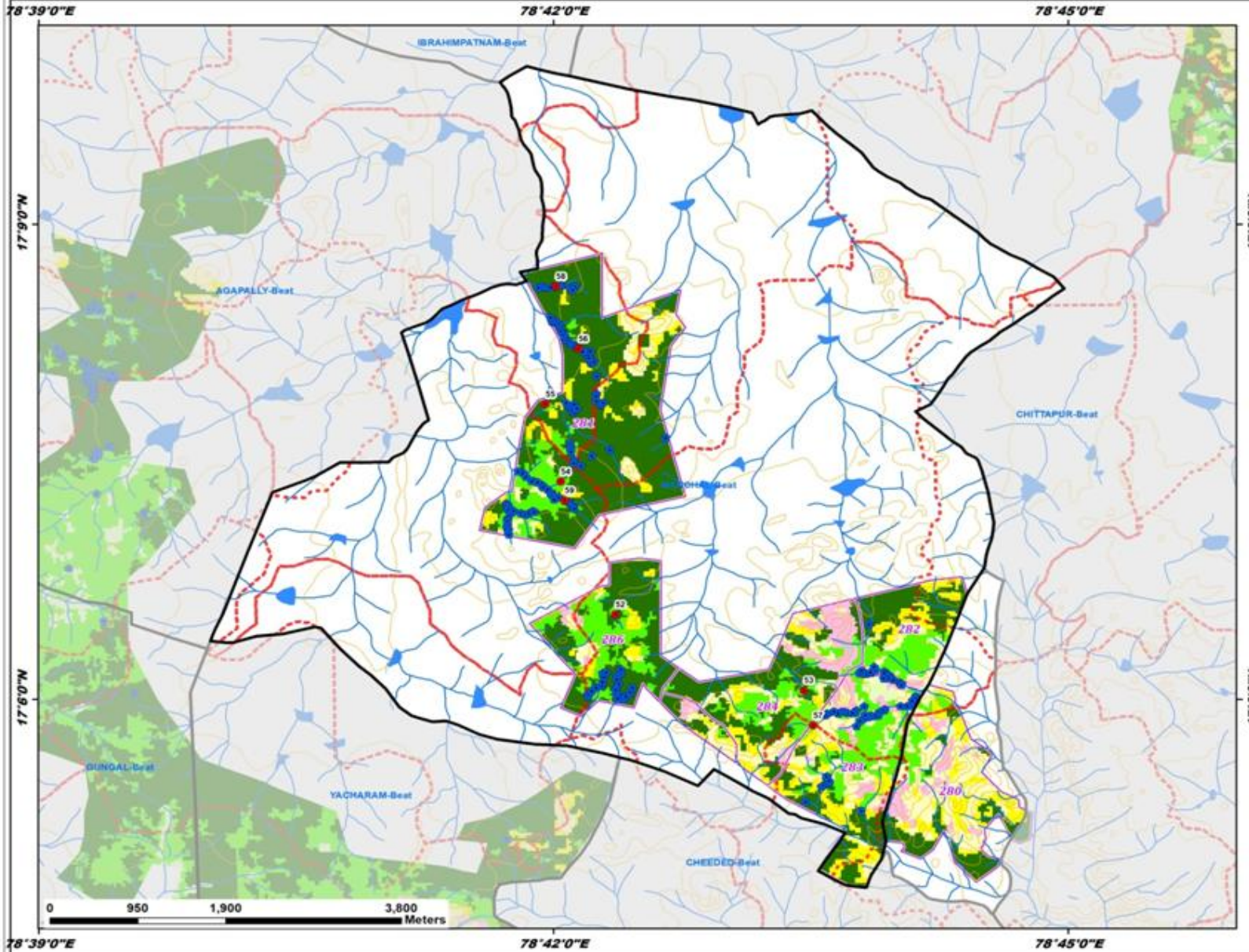
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

Map Showing Suitability index for Construction of SMC Works of Manchal Beat



Division : Amangal
Range : Ibrahimpatnam



ID	Latitude	Longitude	Catchment Area_Ma	Priority
52	17.108959	78.706035	13.35	I
53	17.100963	78.724344	5.31	II
54	17.122948	78.700710	6.55	II
55	17.131071	78.699236	9.39	II
56	17.136908	78.702429	36.40	II
57	17.097287	78.725232	8.37	II
58	17.143481	78.700249	26.00	II
59	17.120938	78.701091	26.64	III

Legend

- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

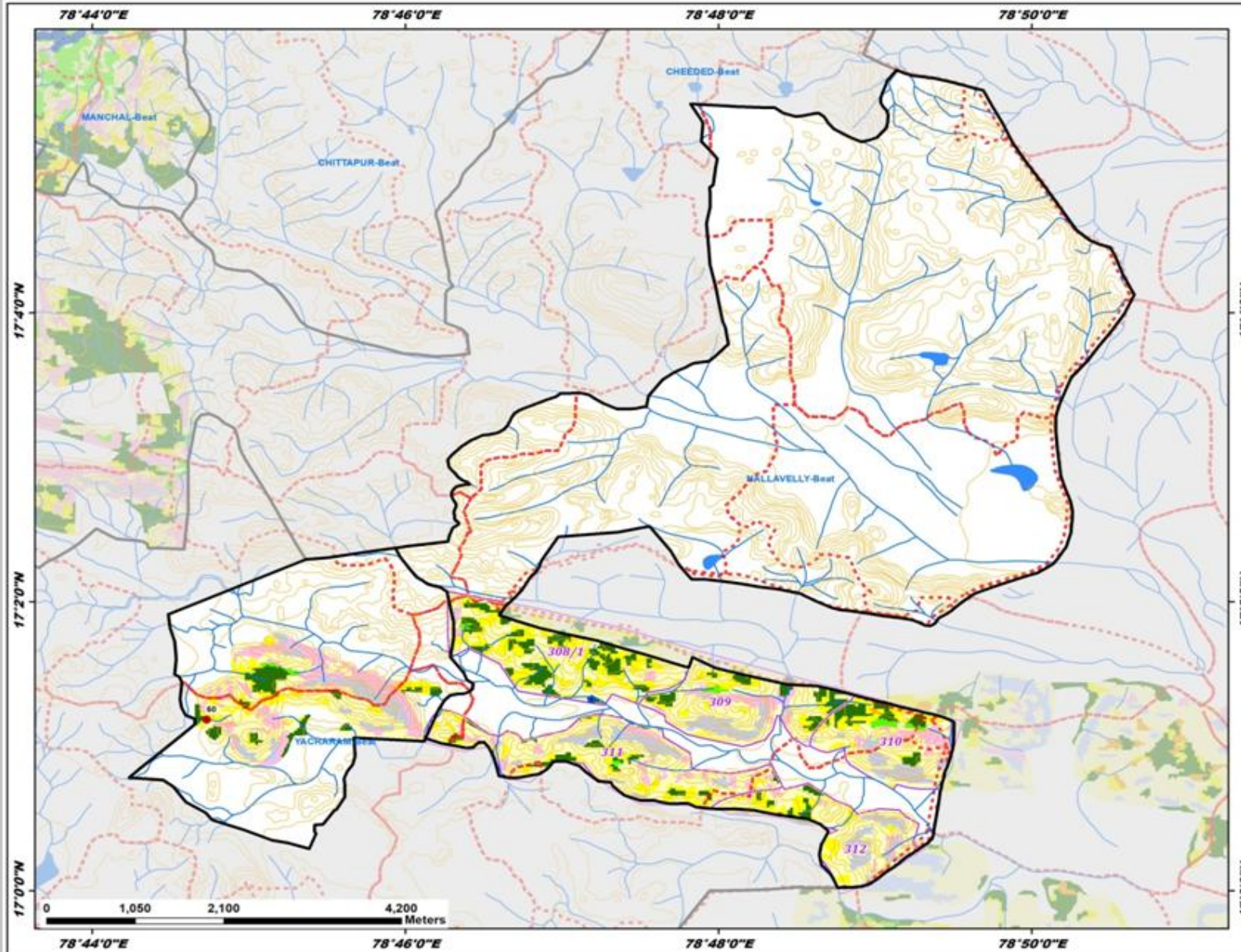
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGP - Suitable
- Not Suitable
- Water Body

Map Showing Suitability index for Construction of SMC Works of Nallavelly Beat



Division : Amangal
Range : Ibrahimpatnam



ID	Latitude	Longitude	Catchment Area_Ha	Priority
60	17.019773	78.745542	18.49	I

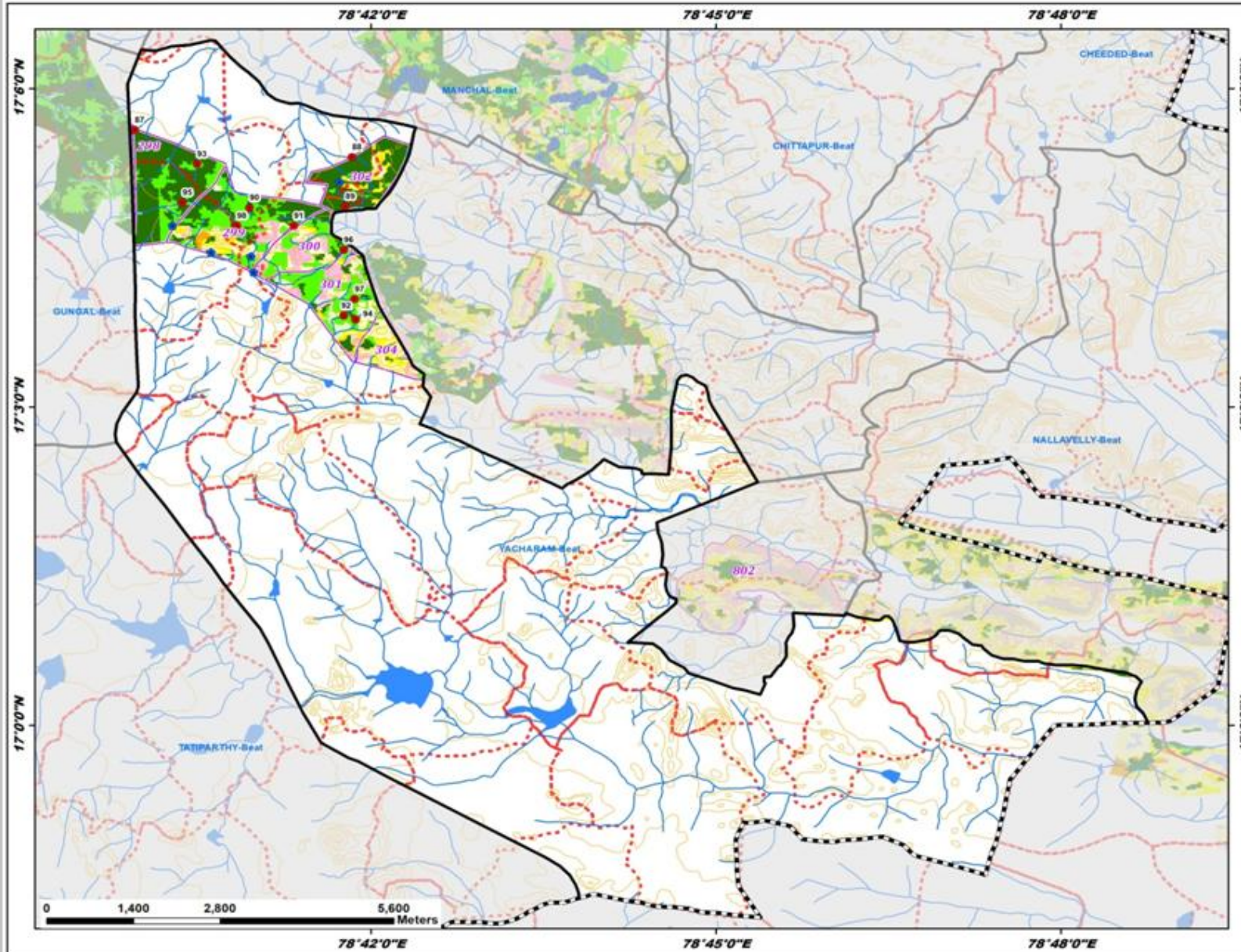
Legend

- Proposed_PTs
 - Existing CD/PTs
 - Contours
 - Streams
 - Watershed Boundary
 - Compartment Boundary
 - Beat Boundary
- ### Suitability Index
- CCTs/SCTs - Highly Suitable
 - CCTs/SCTs - Moderately Suitable
 - CCTs/SCTs - Least Suitable
 - PTs - Highly Suitable
 - PTs - Moderately Suitable
 - PTs - Least Suitable
 - MPTs and SGP's - Suitable
 - Not Suitable
 - Water Body

Map Showing Suitability index for Construction of SMC Works of Yacharam Beat



Division : Amangal
Range : Ibrahimpatnam



ID	Latitude	Longitude	Catchment Area_Ha	Priority
87	17.093560	78.665753	13.54	I
88	17.089292	78.697253	15.46	I
89	17.081559	78.696296	7.78	I
90	17.081354	78.682433	8.17	I
91	17.078515	78.688845	6.02	II
92	17.064363	78.696057	5.38	II
93	17.088188	78.674805	11.18	II
94	17.063773	78.697782	6.19	II
95	17.082129	78.672656	13.37	II
96	17.074710	78.696079	7.04	II
97	17.066978	78.697623	9.26	II
98	17.078517	78.680579	12.50	II

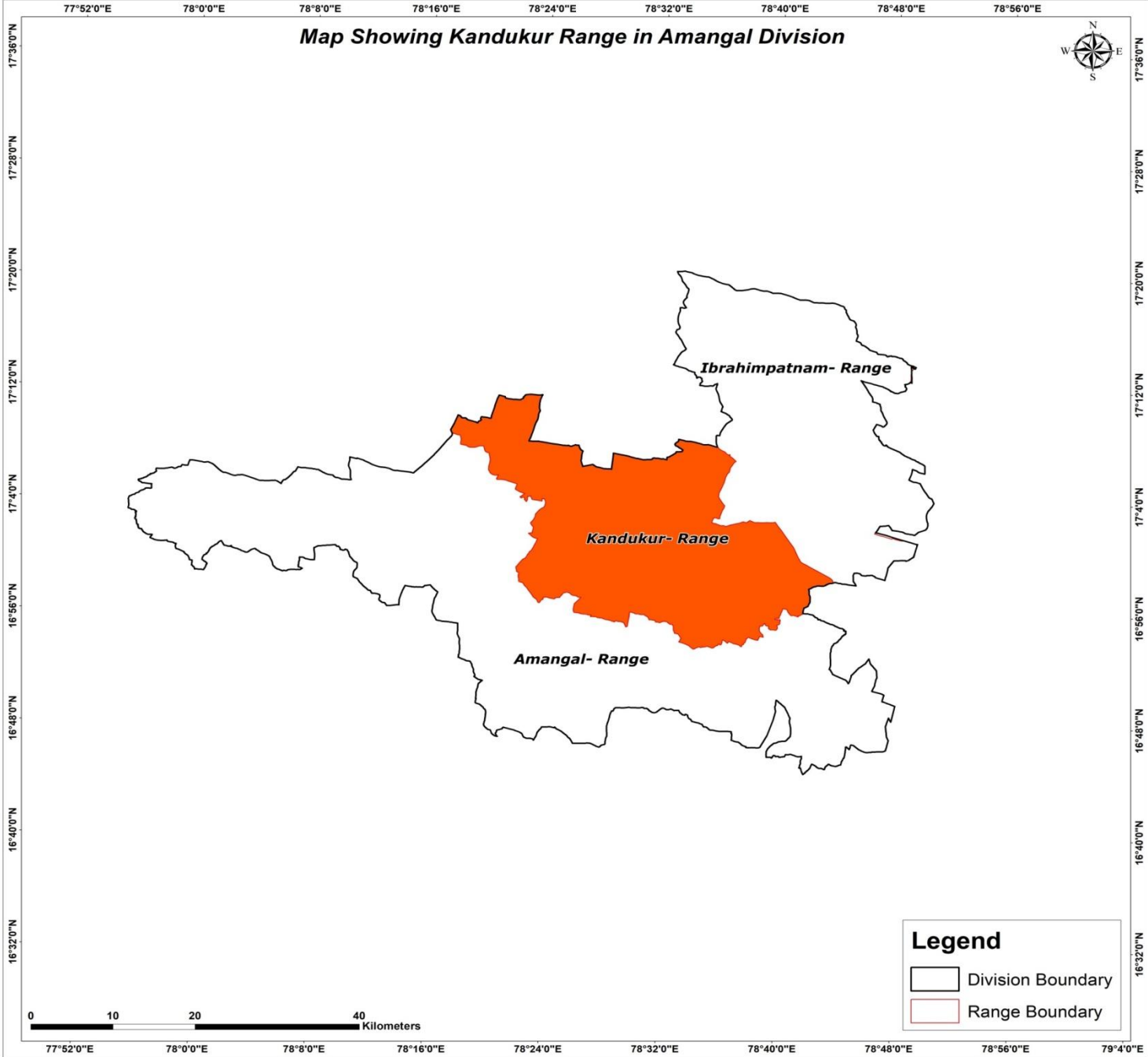
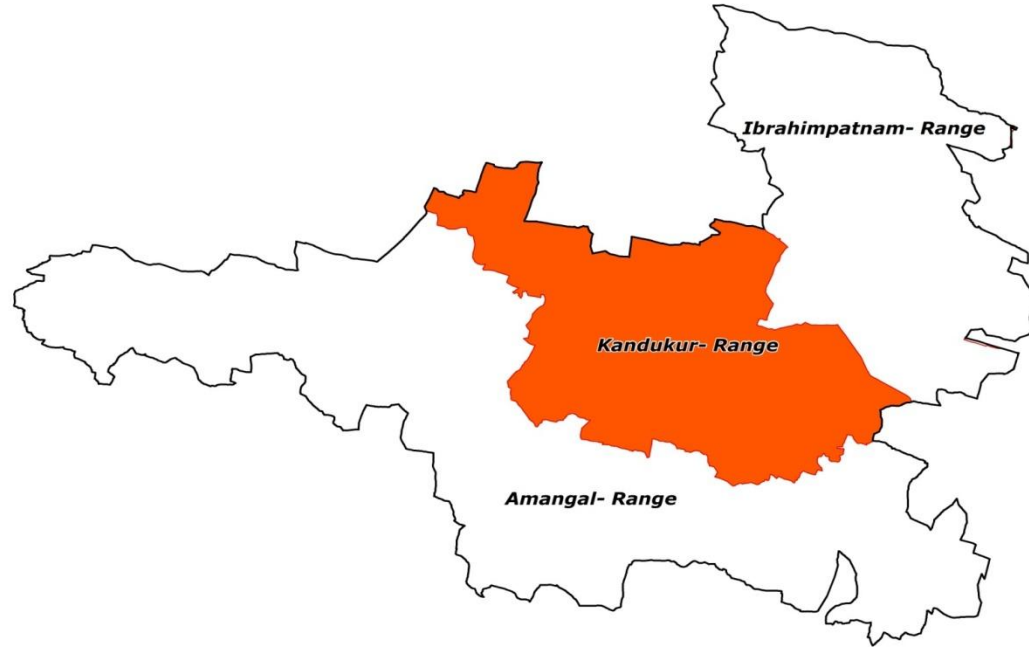
Legend

- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGPs - Suitable
- Not Suitable
- Water Body

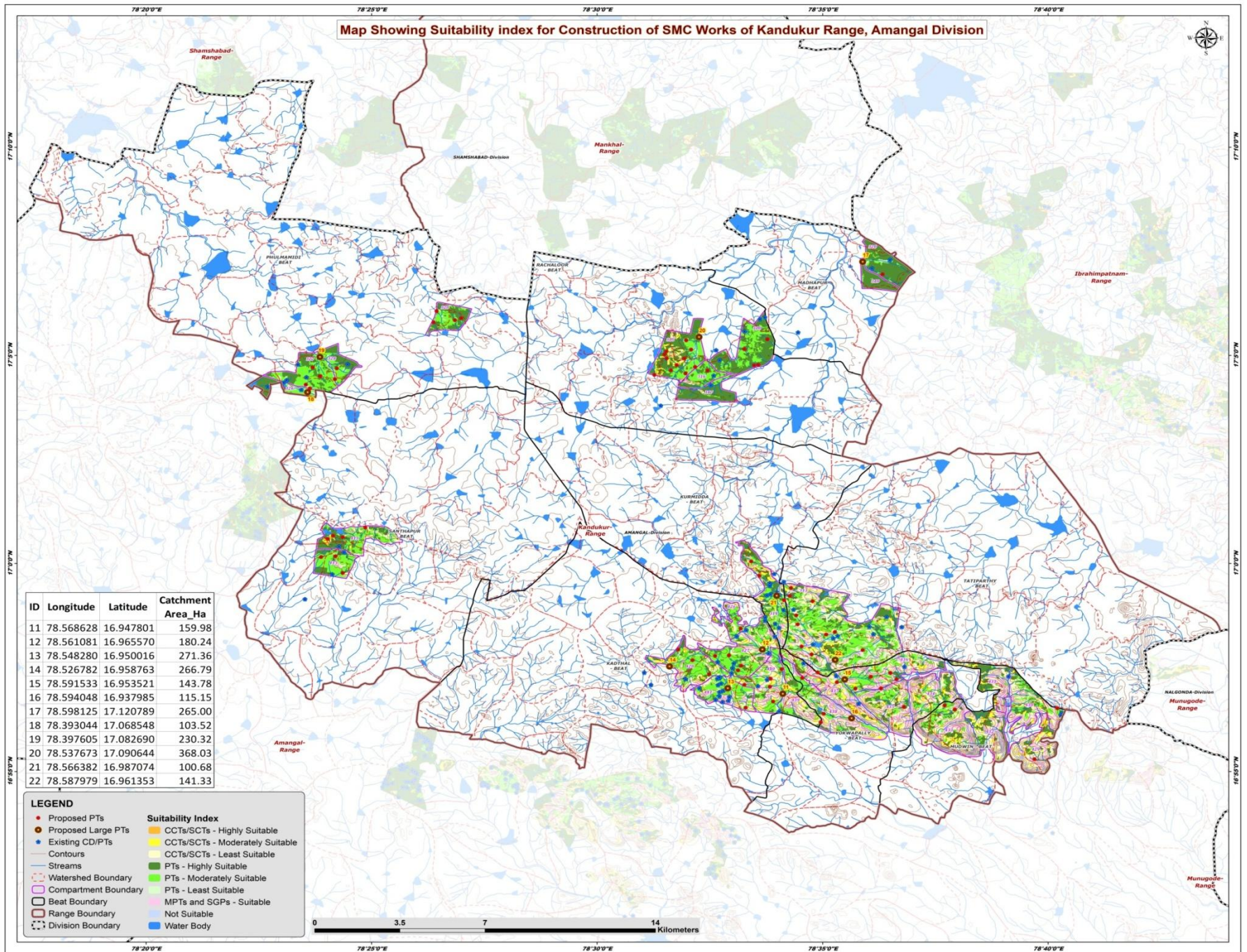
Map Showing Kandukur Range in Amangal Division



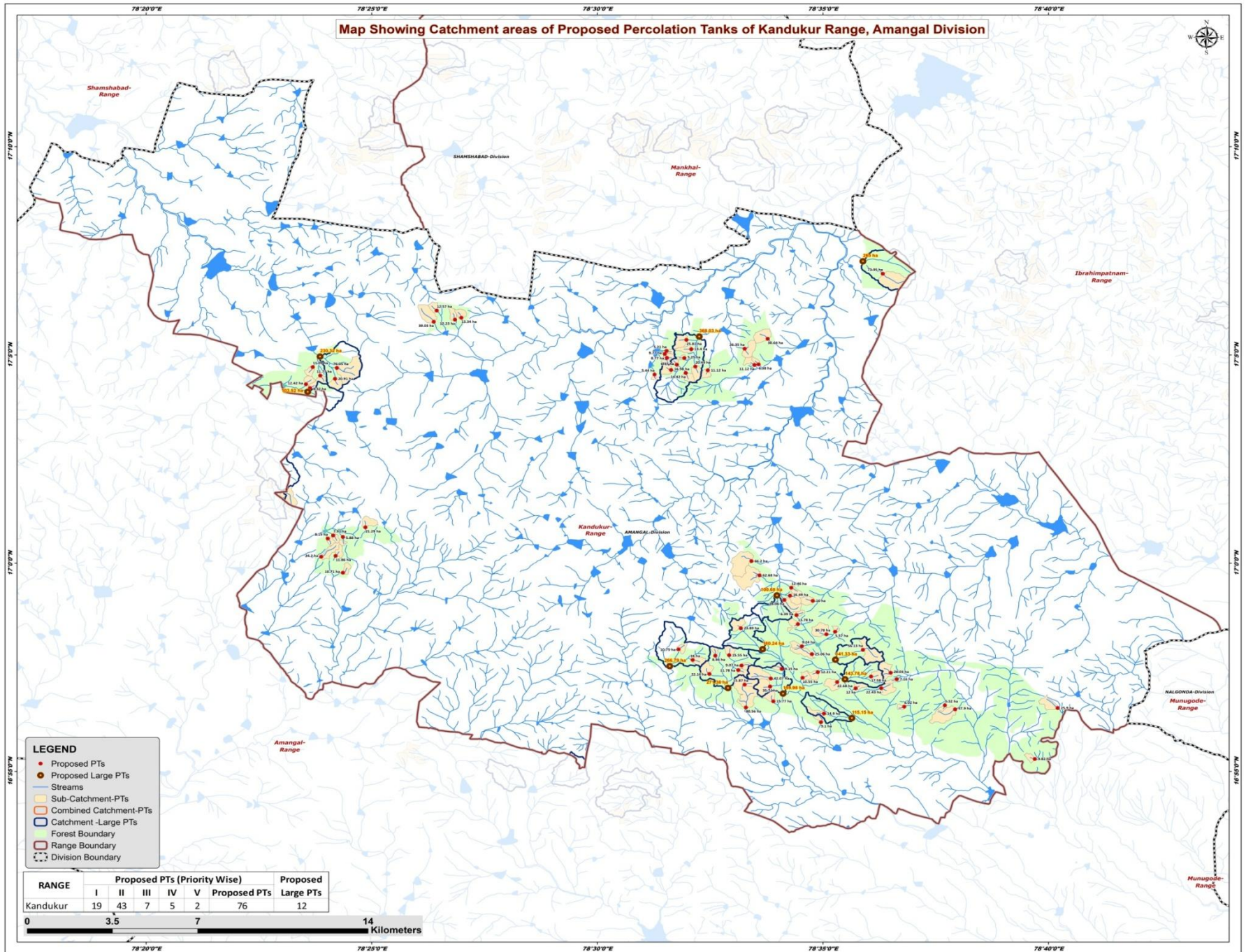
Legend

- Division Boundary
- Range Boundary

Map Showing Suitability index for Construction of SMC Works of Kandukur Range, Amangal Division



Map Showing Catchment areas of Proposed Percolation Tanks of Kandukur Range, Amangal Division



Beat wise Abstract of Proposed PT's – Kandukur Range

S. No.	Beat	Proposed PT's
1	KADTHAL	14
2	KURMIDDA	3
3	MADHAPUR	1
4	MUDWIN	4
5	PHULMAMIDI	10
6	RACHALLOOR	16
7	SANTHAPUR	7
8	TATIPARTHY	11
9	YOKWAPALLY	10
	Total	76

List of Proposed PTs – Kandukur Range

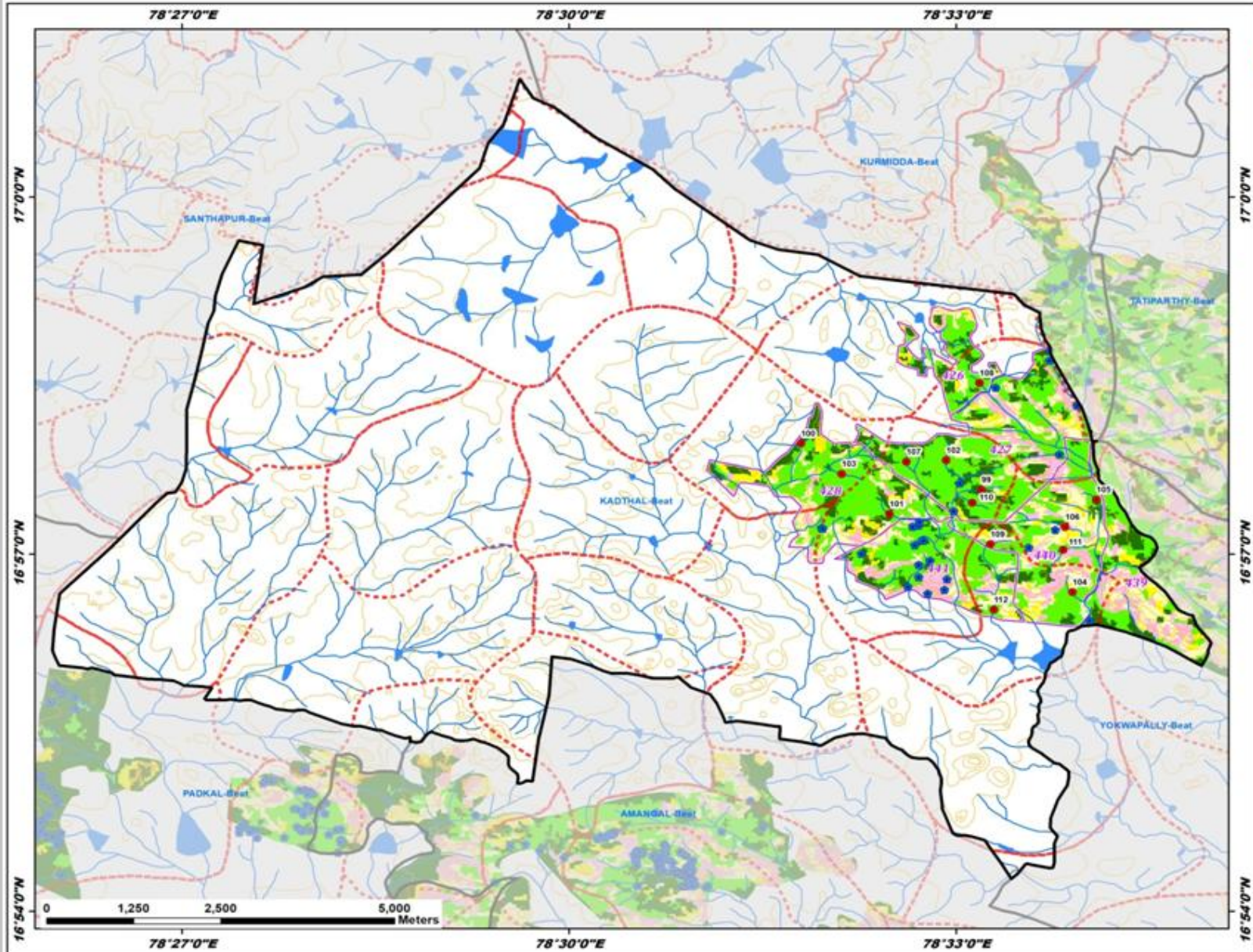
ID	Latitude	Longitude	Catchment Area_Ha	Priority	Beat
99	16.959034	78.553293	9.07	I	KADTHAL
100	16.965502	78.529985	10.75	II	KADTHAL
101	16.955638	78.541420	22.16	II	KADTHAL
102	16.963158	78.548724	15.55	II	KADTHAL
103	16.961253	78.535264	16.00	II	KADTHAL
104	16.944707	78.565061	15.77	II	KADTHAL
105	16.957661	78.568149	9.15	II	KADTHAL
106	16.953832	78.564110	42.07	II	KADTHAL
107	16.962948	78.543607	8.94	II	KADTHAL
108	16.973965	78.553032	23.89	II	KADTHAL
109	16.951406	78.554445	15.87	II	KADTHAL
110	16.957204	78.552087	11.78	II	KADTHAL
111	16.950623	78.563846	35.71	III	KADTHAL
112	16.942243	78.554896	80.56	IV	KADTHAL
113	16.921651	78.661655	9.82	I	MUDWIN
114	16.942030	78.670094	25.90	II	MUDWIN
115	16.943105	78.628420	5.32	II	MUDWIN
116	16.941479	78.632204	47.90	III	MUDWIN
117	16.942581	78.613424	6.02	I	YOKWAPALLY
118	16.939793	78.583793	14.90	I	YOKWAPALLY
119	16.956137	78.608382	28.03	II	YOKWAPALLY
120	16.954123	78.575855	10.55	II	YOKWAPALLY
121	16.953565	78.610639	7.16	II	YOKWAPALLY
122	16.949883	78.595462	12.00	II	YOKWAPALLY
123	16.952415	78.588634	22.68	II	YOKWAPALLY
124	16.954625	78.601119	17.58	II	YOKWAPALLY
125	16.936338	78.582635	9.10	II	YOKWAPALLY
126	16.949948	78.604884	22.43	II	YOKWAPALLY
127	17.115815	78.605487	73.95	IV	MADHAPUR
128	17.078470	78.394938	11.09	I	PHULMAMIDI
129	17.098193	78.449802	13.34	I	PHULMAMIDI
130	17.075042	78.397675	11.77	I	PHULMAMIDI
131	17.071615	78.392390	12.42	II	PHULMAMIDI
132	17.097449	78.447445	12.23	II	PHULMAMIDI
133	17.101049	78.440697	12.57	II	PHULMAMIDI
134	17.096563	78.439606	39.03	II	PHULMAMIDI
135	17.070075	78.393896	8.32	II	PHULMAMIDI
136	17.078110	78.403823	76.05	IV	PHULMAMIDI
137	17.073754	78.403152	20.91	IV	PHULMAMIDI
138	17.082044	78.532176	5.25	I	RACHALLOOR

ID	Latitude	Longitude	Catchment Area_Ha	Priority	Beat
139	17.083722	78.524934	9.77	I	RACHALLOOR
140	17.079545	78.559586	6.38	I	RACHALLOOR
141	17.075469	78.521196	5.44	I	RACHALLOOR
142	17.082127	78.525728	8.77	I	RACHALLOOR
143	17.077165	78.540835	11.12	I	RACHALLOOR
144	17.079293	78.558063	11.12	I	RACHALLOOR
145	17.077288	78.527293	16.98	I	RACHALLOOR
146	17.085780	78.554445	26.35	II	RACHALLOOR
147	17.076125	78.532696	14.42	II	RACHALLOOR
148	17.085642	78.534757	13.40	II	RACHALLOOR
149	17.079378	78.529402	6.97	II	RACHALLOOR
150	17.078669	78.536232	20.49	II	RACHALLOOR
151	17.084921	78.525611	5.21	II	RACHALLOOR
152	17.089744	78.562969	30.64	III	RACHALLOOR
153	17.089335	78.532932	25.81	V	RACHALLOOR
154	17.009845	78.400447	8.15	I	SANTHAPUR
155	17.011086	78.402490	7.91	I	SANTHAPUR
156	16.996168	78.406042	10.71	I	SANTHAPUR
157	17.002542	78.398022	24.20	II	SANTHAPUR
158	17.014345	78.414355	21.29	II	SANTHAPUR
159	17.002914	78.403371	11.86	II	SANTHAPUR
160	17.010489	78.406034	5.88	II	SANTHAPUR
161	16.985273	78.569101	28.06	III	KURMIDDA
162	16.995119	78.559945	62.68	III	KURMIDDA
163	17.000793	78.556957	66.20	IV	KURMIDDA
164	16.986935	78.571215	16.49	I	TATIPARTHY
165	16.975609	78.574141	13.78	II	TATIPARTHY
166	16.979201	78.573563	6.39	II	TATIPARTHY
167	16.966757	78.575567	9.24	II	TATIPARTHY
168	16.990160	78.571685	12.46	II	TATIPARTHY
169	16.956388	78.581463	12.21	II	TATIPARTHY
170	16.972541	78.587870	5.57	II	TATIPARTHY
171	16.984910	78.579624	16.00	II	TATIPARTHY
172	16.971514	78.584688	30.78	III	TATIPARTHY
173	16.963590	78.579279	25.06	III	TATIPARTHY
174	16.965284	78.598131	56.13	V	TATIPARTHY

Map Showing Suitability index for Construction of SMC Works of Kadthal Beat



Division : Amangal
Range : Kandukur



ID	Latitude	Longitude	Catchment Area_Ha	Priority
99	16.959034	78.553293	9.07	I
100	16.965502	78.529985	10.75	II
101	16.955638	78.541420	22.16	II
102	16.963158	78.548724	15.55	II
103	16.961253	78.535264	16.00	II
104	16.944707	78.565061	15.77	II
105	16.957661	78.568149	9.15	II
106	16.953832	78.564110	42.07	II
107	16.962948	78.543607	8.94	II
108	16.973965	78.553032	23.89	II
109	16.951406	78.554445	15.87	II
110	16.957204	78.552087	11.78	II
111	16.950623	78.563846	35.71	III
112	16.942243	78.554896	80.56	IV

Legend

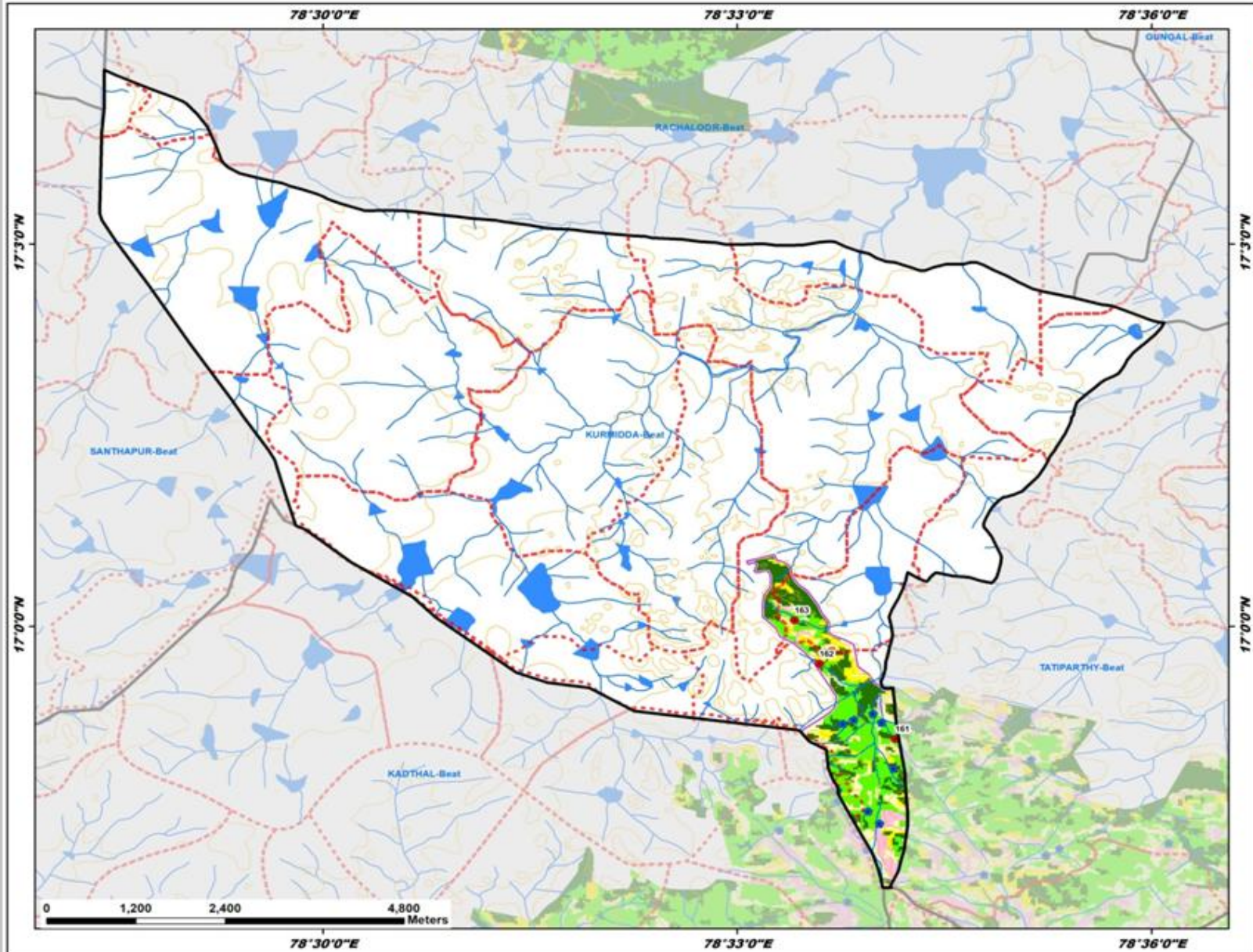
- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

- ### Suitability Index
- CCTs/SCTs - Highly Suitable
 - CCTs/SCTs - Moderately Suitable
 - CCTs/SCTs - Least Suitable
 - PTs - Highly Suitable
 - PTs - Moderately Suitable
 - PTs - Least Suitable
 - MPTs and SGP - Suitable
 - Not Suitable
 - Water Body

Map Showing Suitability index for Construction of SMC Works of Kurmida Beat



Division : Amangal
Range : Kandukur



ID	Latitude	Longitude	Catchment Area_Ha	Priority
161	16.985273	78.569101	28.06	III
162	16.995119	78.559945	62.68	III
163	17.000793	78.556957	66.20	IV

Legend

- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- Watershed Boundary
- Compartment Boundary
- Beat Boundary
- Division Boundary

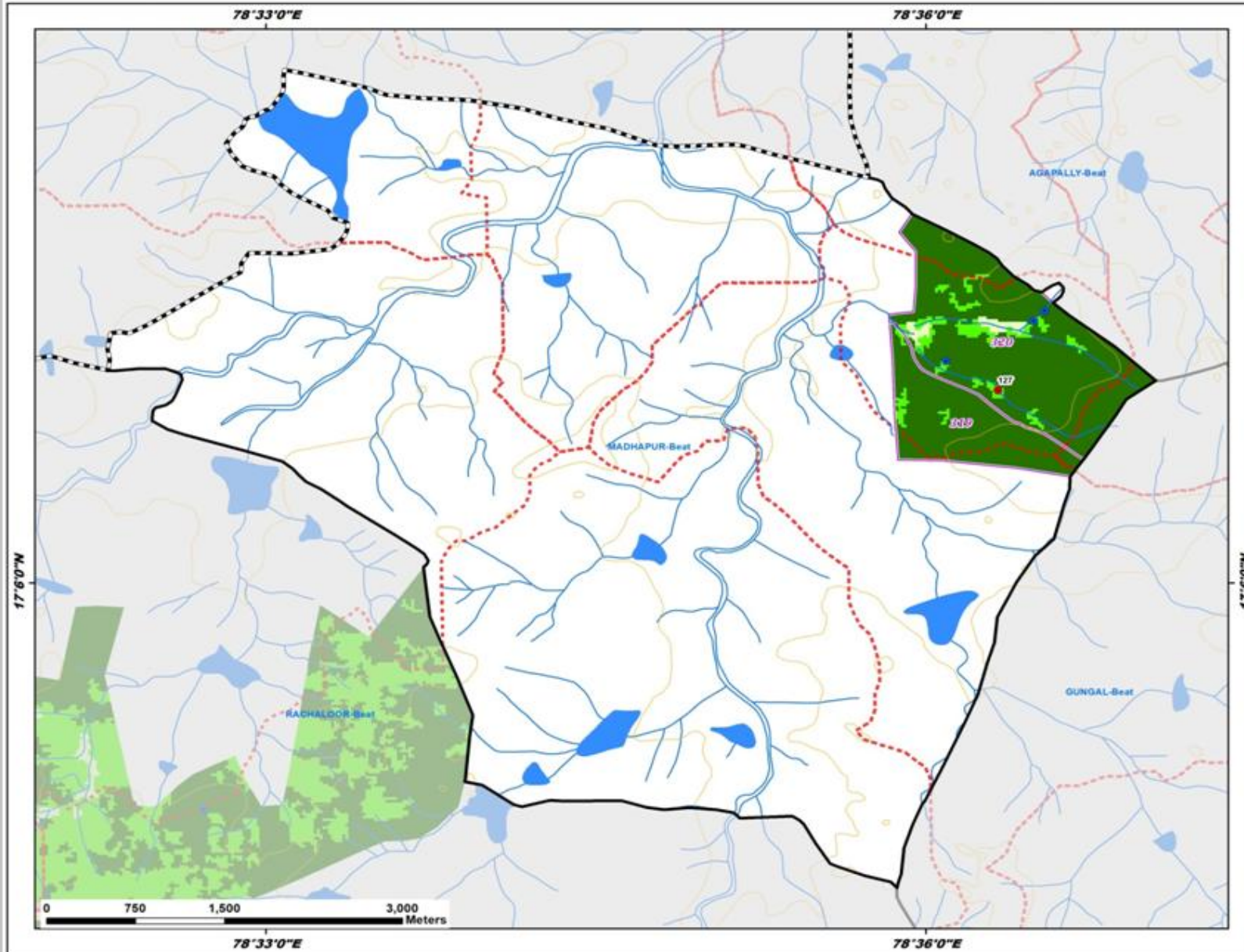
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGP - Suitable
- Not Suitable
- Water Body

Map Showing Suitability index for Construction of SMC Works of Madhapur Beat



Division : Amangal
Range : Kandukur



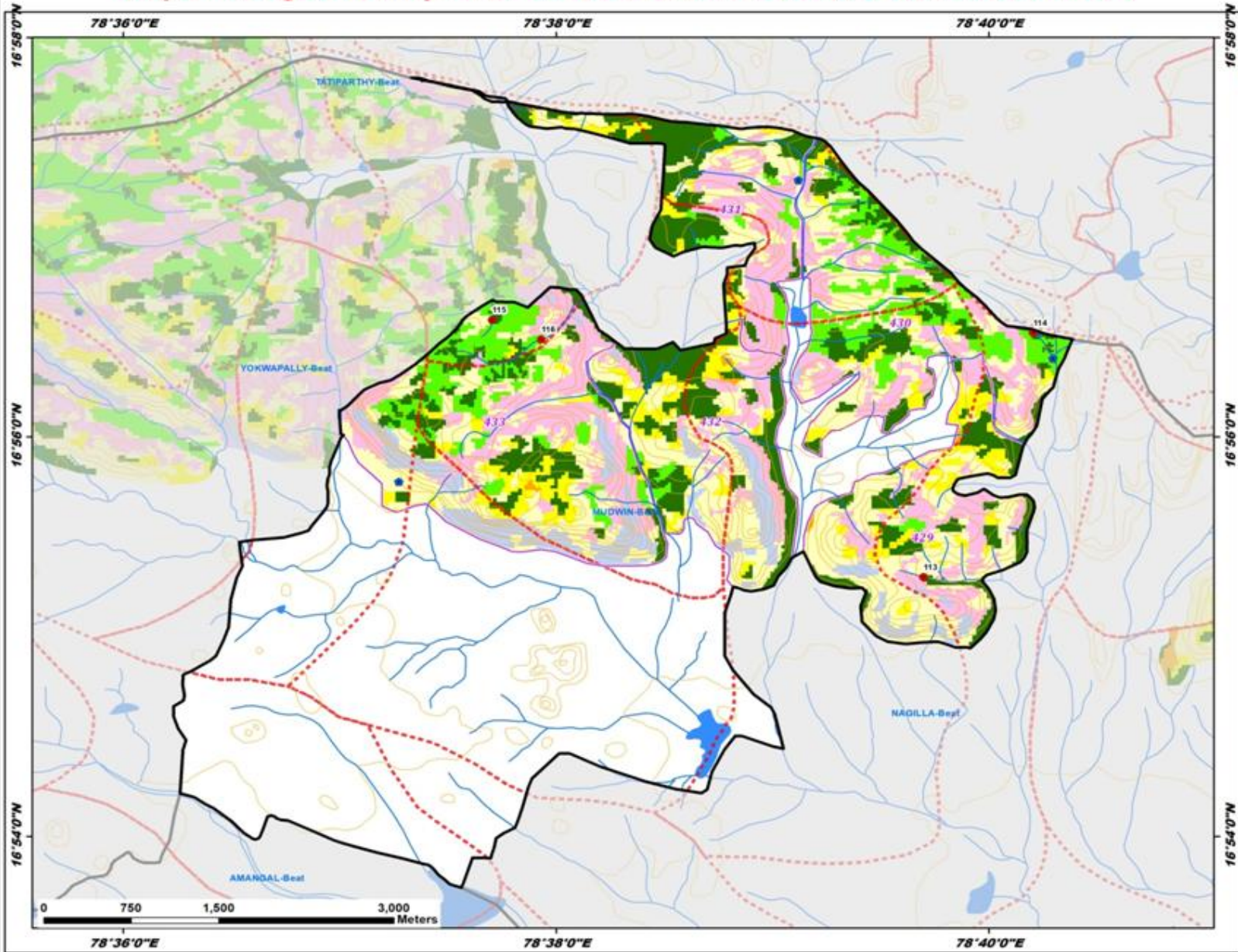
ID	Latitude	Longitude	Catchment Area_Ha	Priority
127	17.115815	78.605487	73.95	IV

- Legend**
- Proposed_PTs
 - Existing CD/PTs
 - Contours
 - Streams
 - Watershed Boundary
 - Compartment Boundary
 - Beat Boundary
 - Division Boundary
- Suitability Index**
- CCTs/SCTs - Highly Suitable
 - CCTs/SCTs - Moderately Suitable
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 - Water Body

Map Showing Suitability index for Construction of SMC Works of Mudwin Beat



Division : Amangal
Range : Kandukur



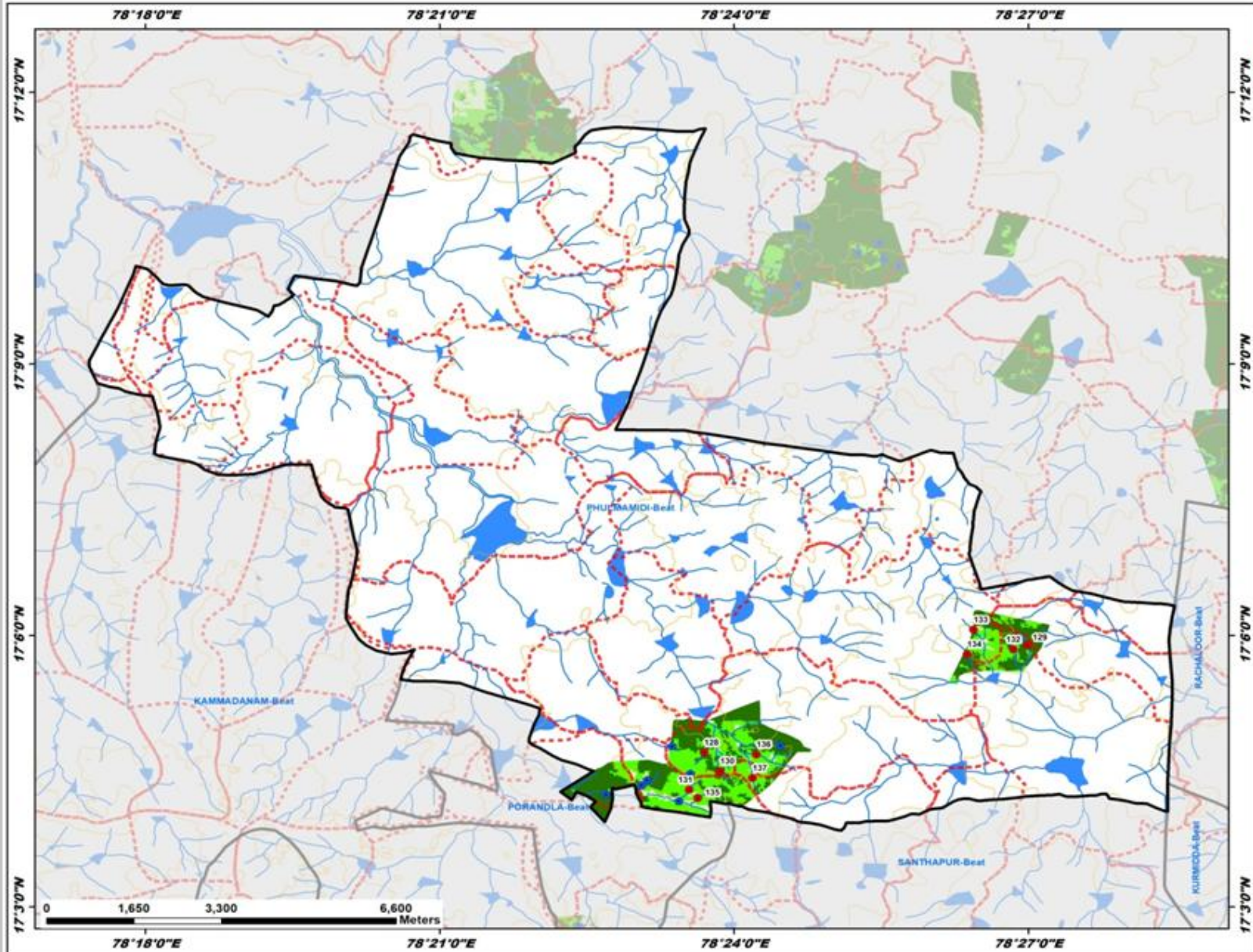
ID	Latitude	Longitude	Catchment Area_Ha	Priority
113	16.921651	78.661655	9.82	I
114	16.942030	78.670094	25.90	II
115	16.943105	78.628420	5.32	II
116	16.941479	78.632204	47.90	III

- Legend**
- Proposed_PTs
 - Existing CD/PTs
 - Contours
 - Streams
 - Watershed Boundary
 - Compartment Boundary
 - Beat Boundary
 - Division Boundary
- Suitability Index**
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 - CCTs/SCTs - Moderately Suitable
 - CCTs/SCTs - Least Suitable
 - PTs - Highly Suitable
 - PTs - Moderately Suitable
 - PTs - Least Suitable
 - MPTs and SGPs - Suitable
 - Not Suitable
 - Water Body

Map Showing Suitability index for Construction of SMC Works of Phulmamidi Beat



Division : Amangal
Range : Kandukur



ID	Latitude	Longitude	Catchment Area_Ha	Priority
128	17.078470	78.394938	11.09	I
129	17.098193	78.449802	13.34	I
130	17.075042	78.397675	11.77	I
131	17.071615	78.392390	12.42	II
132	17.097449	78.447445	12.23	II
133	17.101049	78.440697	12.57	II
134	17.096563	78.439606	39.03	II
135	17.070075	78.393896	8.32	II
136	17.078110	78.403823	76.05	IV
137	17.073754	78.403152	20.91	IV

Legend

- Proposed_PTs
- Existing CD/PTs
- Contours
- Streams
- - - Watershed Boundary
- Compartment Boundary
- Beat Boundary

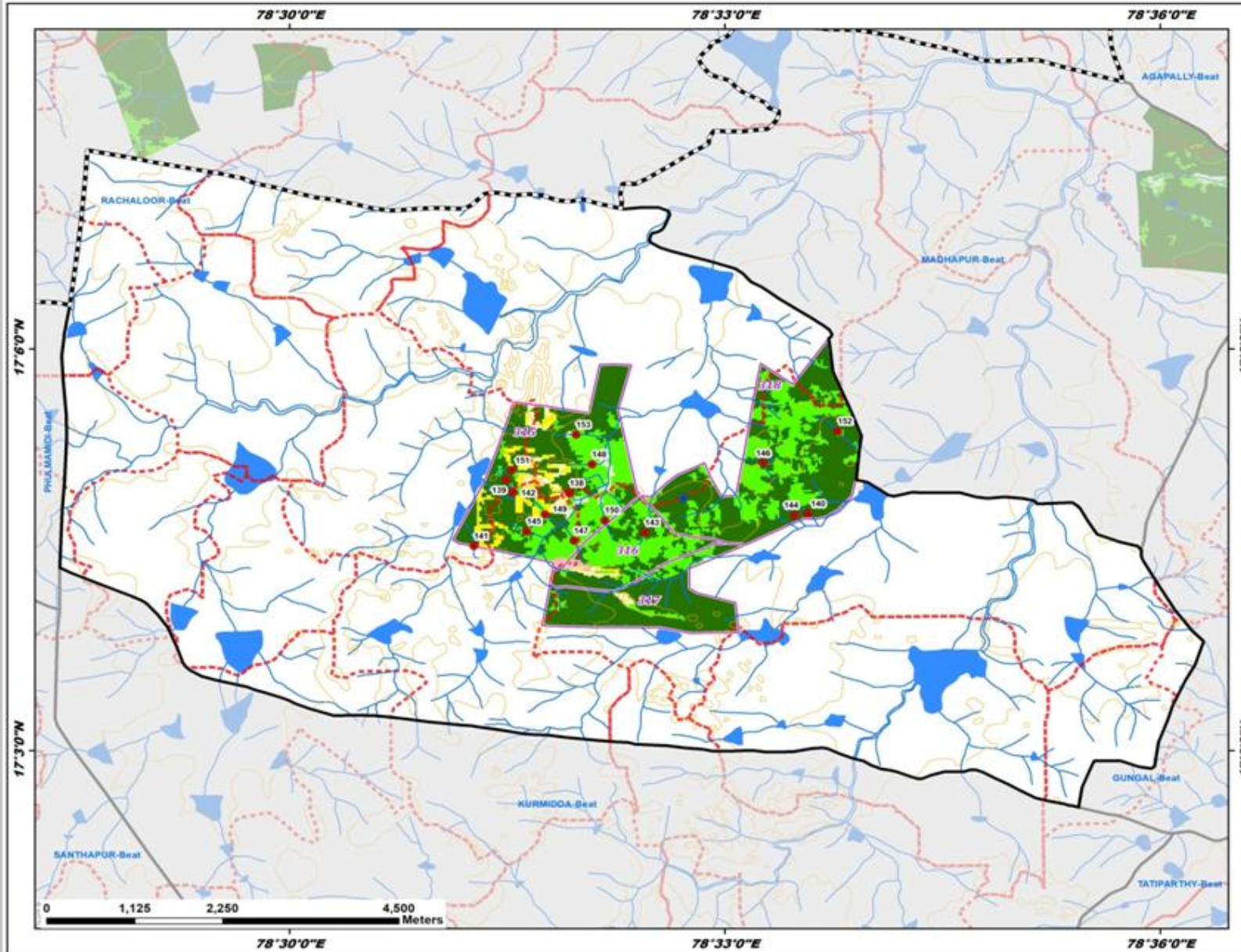
Suitability Index

- CCTs/SCTs - Highly Suitable
- CCTs/SCTs - Moderately Suitable
- CCTs/SCTs - Least Suitable
- PTs - Highly Suitable
- PTs - Moderately Suitable
- PTs - Least Suitable
- MPTs and SGP - Suitable
- Not Suitable
- Water Body

Map Showing Suitability index for Construction of SMC Works of Rachaloor Beat



Division : Amangal
Range : Kandukur



ID	Latitude	Longitude	Catchment Area_Ha	Priority
138	17.082044	78.532176	5.25	I
139	17.083722	78.524934	9.77	I
140	17.079545	78.559586	6.38	I
141	17.075469	78.521196	5.44	I
142	17.082127	78.525728	8.77	I
143	17.077165	78.540835	11.12	I
144	17.079293	78.558063	11.12	I
145	17.077288	78.527293	16.98	I
146	17.085780	78.554445	26.35	II
147	17.076125	78.532696	14.42	II
148	17.085642	78.534757	13.40	II
149	17.079378	78.529402	6.97	II
150	17.078669	78.536232	20.49	II
151	17.084921	78.525611	5.21	II
152	17.089744	78.562969	30.64	III
153	17.089335	78.532932	25.81	V

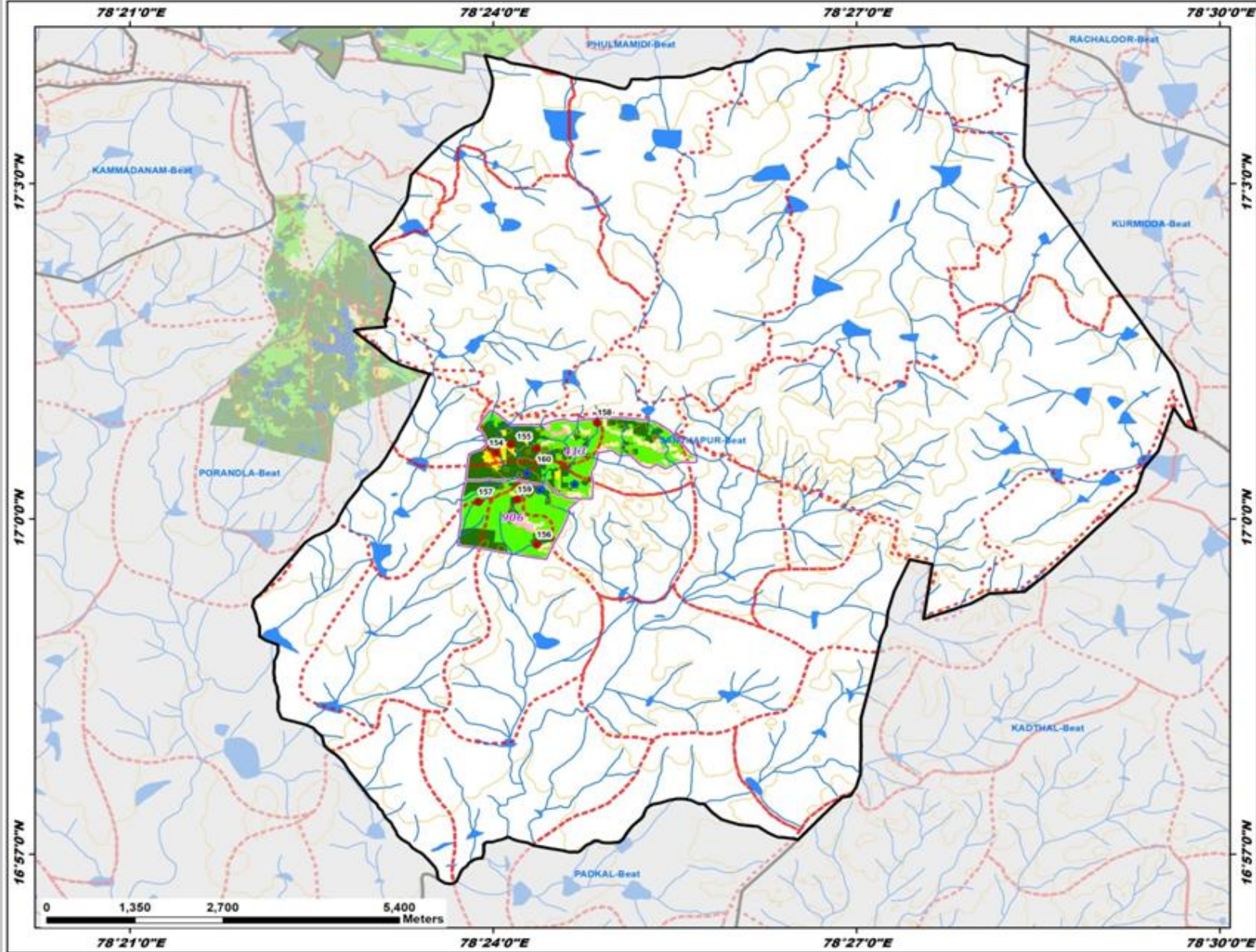
Legend

- Proposed_PTs
 - Existing CD/PTs
 - Contours
 - Streams
 - Watershed Boundary
 - Compartment Boundary
 - Beat Boundary
 - Division Boundary
- Suitability Index**
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 - CCTs/SCTs - Least Suitable
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 - PTs - Least Suitable
 - MPTs and SGPts - Suitable
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 - Water Body

Map Showing Suitability index for Construction of SMC Works of Santhapur Beat



Division : Amangal
Range : Kandukur



ID	Latitude	Longitude	Catchment Area_Ha	Priority
154	17.009845	78.400447	8.15	I
155	17.011086	78.402490	7.91	I
156	16.996168	78.406042	10.71	I
157	17.002542	78.398022	24.20	II
158	17.014345	78.414355	21.29	II
159	17.002914	78.403371	11.86	II
160	17.010489	78.406034	5.88	II

Legend

- Proposed_PTs
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- Division Boundary

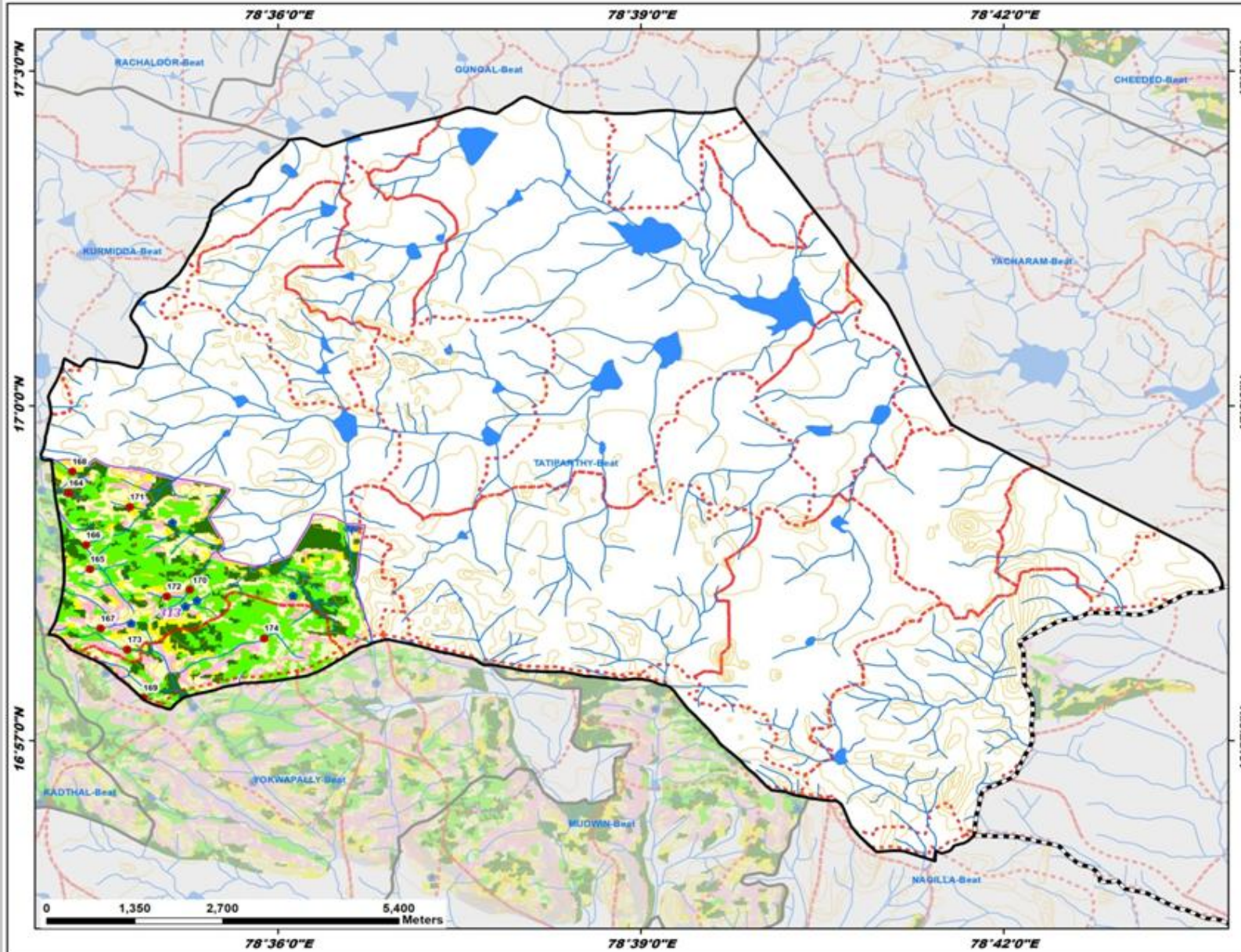
Suitability Index

- CCTs/SCTs - Highly Suitable
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- CCTs/SCTs - Least Suitable
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- PTs - Moderately Suitable
- PTs - Least Suitable
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- Not Suitable
- Water Body

Map Showing Suitability index for Construction of SMC Works of Tatiparthi Beat



Division : Amangal
Range : Kandukur



ID	Latitude	Longitude	Catchment Area_Ha	Priority
164	16.986935	78.571215	16.49	I
165	16.975609	78.574141	13.78	II
166	16.979201	78.573563	6.39	II
167	16.966757	78.575567	9.24	II
168	16.990160	78.571685	12.46	II
169	16.956388	78.581463	12.21	II
170	16.972541	78.587870	5.57	II
171	16.984910	78.579624	16.00	II
172	16.971514	78.584688	30.78	III
173	16.963590	78.579279	25.06	III
174	16.965284	78.598131	56.13	V

Legend

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- Division Boundary

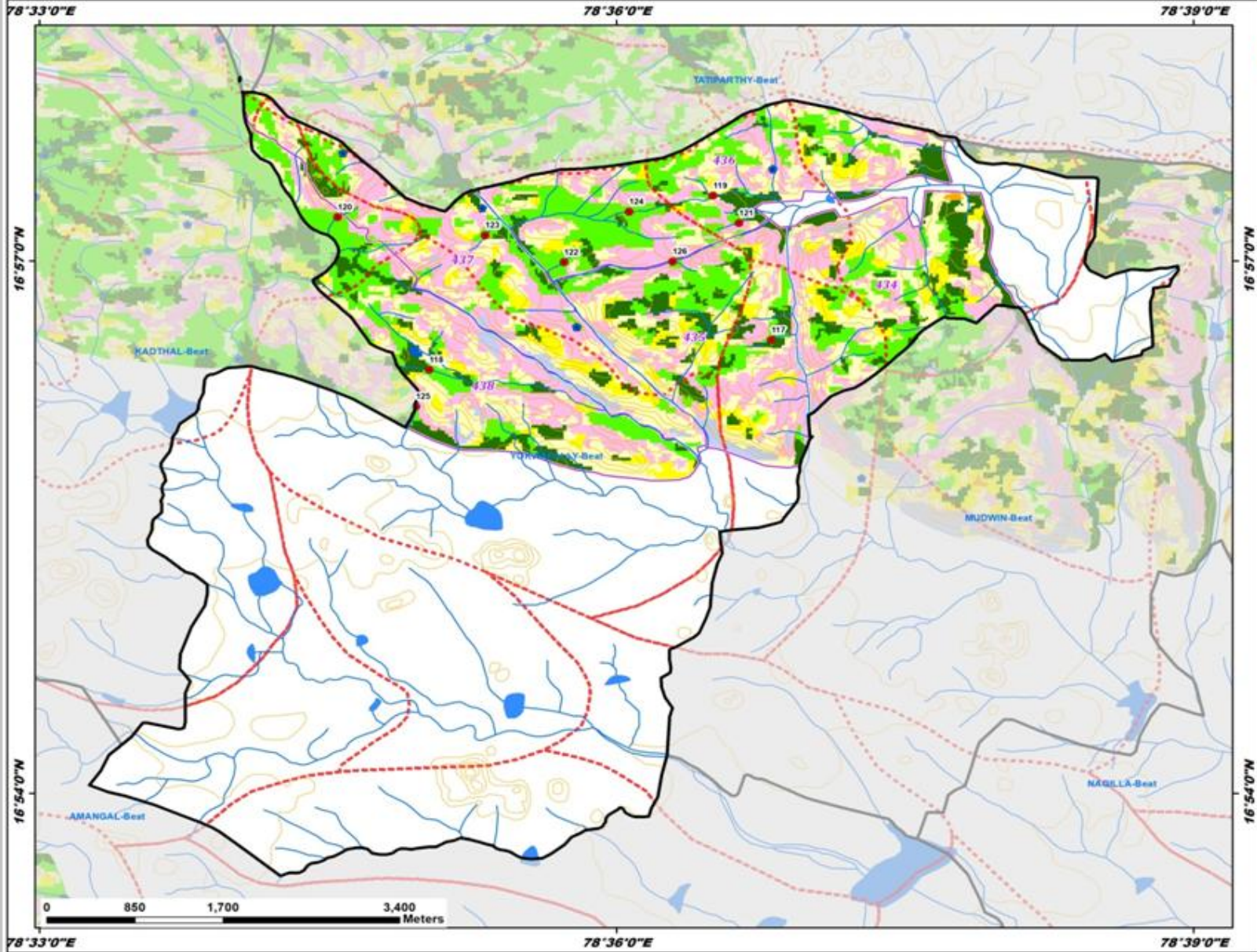
Suitability Index

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Map Showing Suitability index for Construction of SMC Works of Yokwapally Beat



Division : Amangal
Range : Kandukur



ID	Latitude	Longitude	Catchment Area_Ha	Priority
117	16.942581	78.613424	6.02	I
118	16.939793	78.583793	14.90	I
119	16.956137	78.608382	28.03	II
120	16.954123	78.575855	10.55	II
121	16.953565	78.610639	7.16	II
122	16.949883	78.595462	12.00	II
123	16.952415	78.588634	22.68	II
124	16.954625	78.601119	17.58	II
125	16.936338	78.582635	9.10	II
126	16.949948	78.604884	22.43	II

Legend

- Proposed_PTs
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