

### Appendix 3. Site Outcomes in the Western Ghats by Corridor

No.	Site Name	No. Globally Threatened Species*				Protected Area	Priority site for CEPF investment
		CR	EN	VU	Total		
<b>Periyar-Agasthyamalai Corridor</b>							
1	Achankovil FD -Kerala	5	1	14	20		
2	High Wavy Mountains	1	3		4		+
3	Kalakkad- Mundunthurai TR	6	19	37	62	+	+
4	Kulathapuzha-Palode RF (Ponmudi Hills)	8	21	29	58		+
5	Neyyar WLS	3	13	20	36	+	+
6	Peppara WLS	7	18	28	53	+	+
7	Periyar TR	7	9	26	42	+	+
8	Ranni FD	5	5	15	25		+
9	Shendurney WLS	2	9	21	32	+	+
10	Srivilliputtur / Grizzled Giant Squirrel WLS		5	5	10	+	+
11	Tirunelveli FD	9	41	30	80		+
<b>Annamalai Corridor</b>							
12	Cardamom Hills RF	1	2	11	14		+
13	Chimmony WLS		2	4	6	+	+
14	Chinnar WLS		3	4	7	+	+
15	Eravikulam NP		5	11	16	+	+
16	Grass Hills NP		1	4	5	+	+
17	Indira Gandhi WLS & NP/ Anamalai/ Top Slip	7	18	25	50	+	+
18	Malayattur FD		1		1		
19	Munnar area	3	2		5		+
20	Nemmara FD – Nelliampathy RF	1	2	4	7		+
21	Palni Hills (Including Kodaikanal RF)	4	8	15	27		+
22	Parambikulam WLS		5	10	15	+	+
23	Peechi-Vazhani WLS	1	3	6	10	+	+
24	Thattekad Bird Sanctuary			2	2	+	
25	Vazhachal FD	1	2	4	7		+
<b>Mysore –Nilgiri Corridor</b>							
26	Aralam WLS		3	7	10	+	+
27	Attapadi RF	1	5	6	12		+
28	Bandipur NP/TR	1	3	13	17	+	+
29	Bannerghatta NP	2	1	3	6	+	
30	Brahmagiri WLS	2	8	8	18	+	+

31	BRT WLS	2	3	9	14	+	+
32	Cairnhill RF- Nilgiris			2	2		
33	Cauvery WLS	2	1	8	11	+	+
34	Conoor		2	2	4		
35	Erode FD		1		1		+
36	Govenor's Shola		1	1	2		+
37	Hosur FD		1		1		+
38	Kallar forests - Ooty	1	2		3		
39	Kodanad - Nilgiri		1	1	2		
40	Kollegal FD		1		1		+
41	Kotagiri- Longwood shola		1	5	6		
42	Kundah RF – Avalanche & Bison Swamp		3	4	7		+
43	Mudumalai WLS	3	5	16	24	+	+
44	Mukurthi NP		8	8	16	+	+
45	Naduvattam RF	1	1	1	3		+
46	Nilambur range – Nilambur North FD & New Amarambalam RF	1	7	12	20		+
47	Nilgiri North FD	1	1	12	14		+
48	Nugu WLS		2	2	4	+	
49	Rajiv Gandhi (NH)NP/ Nagarhole	1	2	10	13	+	+
50	Sathyamangalam FD (Part)		1	1	2		+
51	Silent valley NP		11	16	27	+	+
52	Siruvani Foothills		4	1	5		+
53	Kalpetta (forest- coffee matrix)		1		1		
54	Talaimalai RF			1	1		+
55	Thai Shola RF		1	2	3		
56	Wayanad WLS	3	15	19	37	+	+
	<b>Malnad - Kodagu Corridor</b>						
57	Agumbe RF		2	2	4		+
58	Balahalli RF		1		1		+
59	Balur RF		1	1	2		+
60	Baregundi RF		1		1		+
61	Bhadra TR	4	11	10	25	+	+
62	Bhagimalai RF		1	1	2		+
63	Bisale RF		3	1	4		+
64	Chakra RF		1		1		
65	Charmadi RF	1	2	2	5		+
66	Forests of Gundia-KN		1	1	2		+
67	Hulikal SF		1		1		
68	Kabbinala RF		1	1	2		
69	Kagneri RF		1	1	2		
70	Kanchankumari RF		1	1	2		

71	Kemphole RF	1	1	1	3		+
72	Kerti RF		1		1		+
73	Kidu RF		1	1	2		
74	Kilarmale RF		1		1		+
75	Killandur RF		1		1		+
76	Kiribag RF		1	1	2		+
77	Kodachadri RF		1	1	2		
78	Kudremukh NP	1	6	16	23	+	+
79	Metkalgudde RF		1		1		+
80	Mookambika WLS	1	2	4	7	+	+
81	Neriya RF		1	1	2		
82	Padinalknad RF		1	1	2		
83	Pattighat RF		1	1	2		+
84	Pushpagiri WLS	1	4	5	10	+	+
85	Sharavati WLS	2	2	6	10	+	+
86	Shettihally WLS		3	1	4	+	
87	Shiradi Shisla RF		1	2	3		+
88	Someshwara WLS	1	2	2	5	+	+
89	Someshwara RF		1		1		+
90	Talakaveri WLS	2	5	3	10	+	+
91	Tombattu RF		1		1		+
92	Varahi SF		1		1		
	<b>Sahyadri-Konkan Corridor</b>						
93	Amboli	1	2	1	4		+
94	Anshi NP	1	1	7	9	+	+
95	Barpede cave - Khanapur taluk- KN	1			1		
96	Bhagavan Mahaveer WLS		1	5	6	+	
97	Bondla WLS			1	1	+	
98	Castle Rock-Bhimgad forests	2			2		
99	Chandoli WLS		1	1	2	+	+
100	Cotigao WLS		3	4	7	+	+
101	Dandeli WLS	2	2	9	13	+	+
102	Haliyal RF			1	1		+
103	Koyna WLS	2	3	3	8	+	+
104	Madei WLS		1	2	3	+	
105	Molem National Park		2	4	6	+	+
106	Netravalli WLS			1	1	+	+
107	Radhanagari WLS	2	1	4	7	+	
	<b>OUTSIDE CORRIDORS</b>						
108	Adichunchugiri Bird Sanctuary			1	1	+	
109	Bhimashankar WLS			7	7	+	

110	Gudavi WLS	2			2	+	
111	Harishchandragad-Kalsubai WLS			2	2	+	
112	Idduki WLS		4	5	9	+	
113	Kokkre-Bellur	1		1	2		
114	Krishana Rajasagar Reservoir	1		2	3		
115	Kunthur-Kallur lakes	1		2	3		
116	Kurumbapatti –Salem dist.			1	1		
117	Lonavala – INS Shivaji & adjoining areas	1		2	3		
118	Mahabaleshwar RF		1	4	5		
119	Melkote Temple WLS	2		1	3	+	
120	Narasimabuddhi Lake	1		2	3		
121	Phansad WLS			1	1	+	
122	Ramanagara SF			1	1		
123	Ranganthitoo Bird Sanctuary	1		1	2	+	
124	Sinharh		1		1		+
125	Tansa WLS	2		2	4	+	
126	Theni FD		2		2		+

\* According to the 2002 IUCN Red List of Threatened Species (CR=Critically Endangered, EN=Endangered, VU=Vulnerable)

#### **Appendix 4. Methods Followed for the Prioritization of Site Outcomes in the Western Ghats**

In order to prioritize site outcomes, a grid-based analysis was conducted for the Western Ghats. The decision to pursue a grid-based approach arose from the fact that it allows both a comprehensive and objective assessment of the entire study area. The area within the hotspot boundary that can be considered to have natural vegetation and biodiversity attributes and for which spatial data and remotely sensed data were available was defined as the area of analyses (Appendix 5). This area was divided into grid cells to correspond to Survey of India (SOI) 1:25,000 (about 175 square kilometers each) topographic maps.

The administrative boundaries of Protected area categories such as National Parks and Wildlife Sanctuaries as well as Reserved forests were used to delineate polygons within which presence of species could be located. These thus constitute all known sites within the Western Ghats that merit conservation attention (Figures 5 and 6). The known presence of IUCN Red Listed species belonging to mammals, birds and amphibians in each of these polygons or sites was based on published literature, consultation and field experience of the team.

The grids cells were overlayed on these polygons and each grid cell was allotted the IUCN species based on their location within the sites.

The total number of IUCN presences was summed up for each grid cell and this was rescaled over 0-100 by dividing by the maximum grid value and multiplying by hundred.

In addition to the species attribute each grid cell was allotted two other conservation values based on percentage of unique and rare habitats and the percentage of high quality forest and other natural vegetation.

This was done by dividing the area of analyses into subregions based on physiography and limits of individual remotely sensed imagery. An index of evergreenness (Krishnaswamy et al. 2004) as well as a detailed vegetation map was prepared for each subregion. The detailed vegetation map for each subregion was also aggregated to generate a vegetation classification map for the entire area of analyses.

The unique habitats were identified on the basis of the index of evergreenness. The wettest and most evergreen sites that are closely associated with presence of close canopy evergreen forest or unique evergreen communities such as the *Myristica* swamps were identified in each subregion. The rarest vegetation type in each subregion was identified using the vegetation map. The quality of the forest cover was based on a “edginess” factor derived from analyses of remotely sensed data and the top 25 percent on this index was considered high quality. The percentage of this high quality forest cover within each grid cell made up the third conservation value.

These two additional conservation attributes were also normalized on a scale of 100 as described earlier.

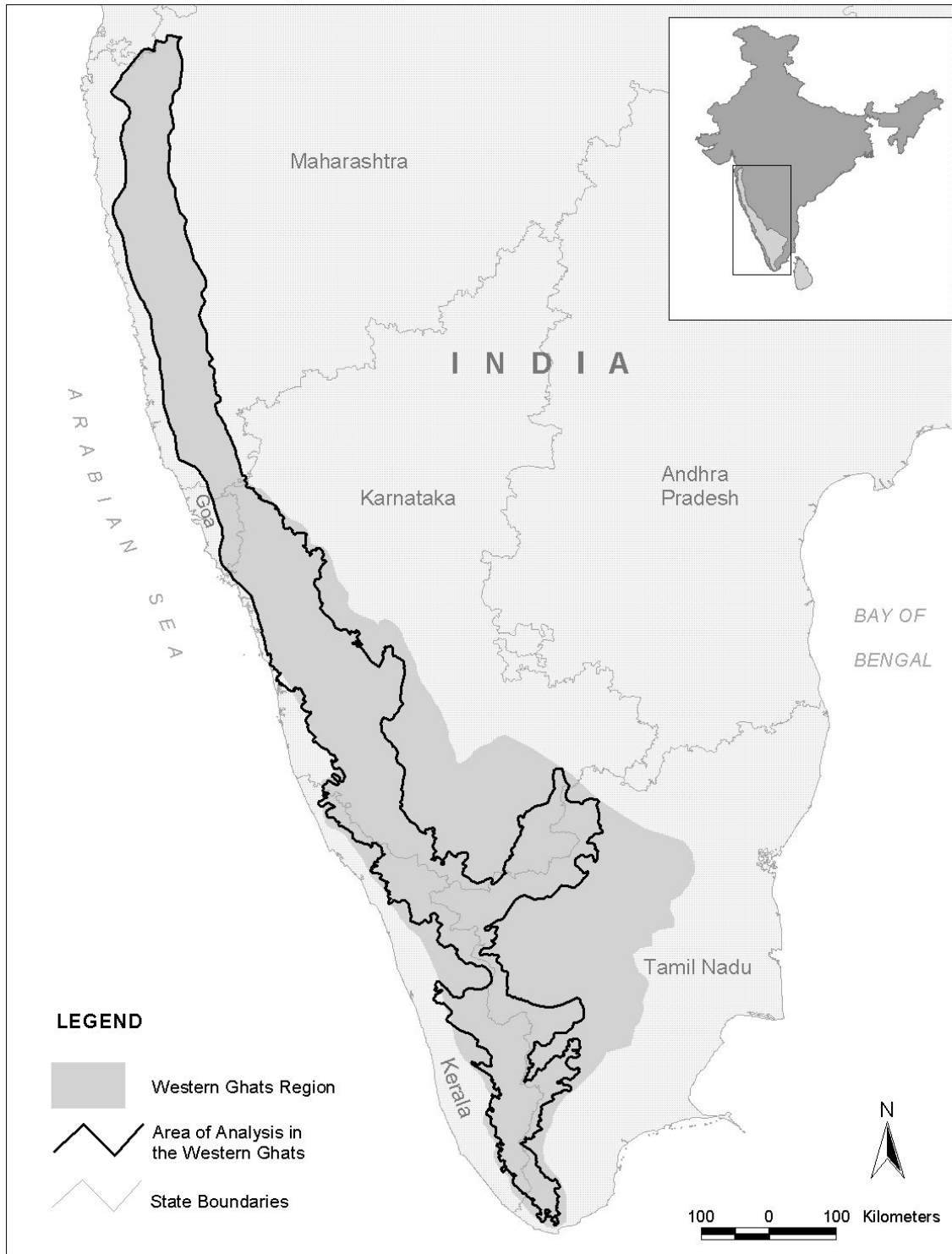
A combined conservation value was generated by summing up the conservation values from each of the three individual components (the IUCN species index, the unique and rare habitat index and the high quality forest index) and this was also rescaled over 0-100.

The upper 25 percent of the grid cells on this combined conservation value score were defined as the prioritized grids.

In addition a conservation value map based on Western Ghats plant species presence within administrative units called talukas derived from the Western Ghats plant database that has been generated by Dr. K.N. Ganeshiah at UAS was compared with our prioritized sites and all the hotspots of plant diversity are covered.

The sites (polygons corresponding to National Parks, Wildlife Sanctuaries, Reserved Forests, etc.) corresponding to these categories, along with those sites that are wholly irreplaceable globally, were defined as the prioritized sites that would be considered along with other criteria such as the degree of threat and analyses of past investments in deciding the sites for CEPF investment.

**Appendix 5. Area of Analysis for the Prioritization of Site Outcomes in the Western Ghats**



Source: Political boundaries from Environmental Systems Research Institute, Inc.- Digital Chart of the World.