

Report of the Participatory Methodology

Background

The 73rd and 74th amendment to the Constitution of India reintroduced the notion of decentralized planning and implementation at the level of villages (normally referred to as revenue villages) through the constitution of Panchayats. Panchayats are elected bodies (in contrast to the historical norm of traditional inheritance and customary guidelines) supported by a larger body known as the Gram Sabha which is comprised of men and women of position, authority and customary power.

In the context of conservation, this amendment gave increased capacity to the workforce of Panchayats and possibilities of preparing action plans and more recently biodiversity registers as mandated by the Biological Diversity Act, 2002.

As the Panchayats emerged as a powerful local level institution with over arching mandates, it soon became evident that the supportive mechanism and tools needed to technically empower and build capacities is not present. This has resulted in situations where these units are either totally bypassed or ignored; experiences in the field of conservation have shown that the lack of involvement of civic organizations in conservation planning and action lead to disastrous consequences.

As a means to address the issue of building capacities, the current project accorded immense attention to developing a methodology that would enable local people and their institutions to participate in biodiversity assessments, while at the same time allow the researcher to undertake a systematic and valid measurement. An additional feature that had to be factored into the methodology was the fact that the assessment was to be limited to River Moyar and its immediate vicinity.

Based on exploratory surveys, and the study of secondary literature it was decided to define the project landscape as the total length of the river (90 km – head to tail) and a 1 km span of the river bank, resulting in an area of 180 sq. km.

Methodological framework

For the convenience of analysis, the river study is classified into two broader sections viz., lower and upper part. Lower part is located in Sathyamangalam and Nilgiris-north forest divisions and upper part of the river is in Mudumalai Wildlife Sanctuary. This classification is based on the altitude and there is a significance of

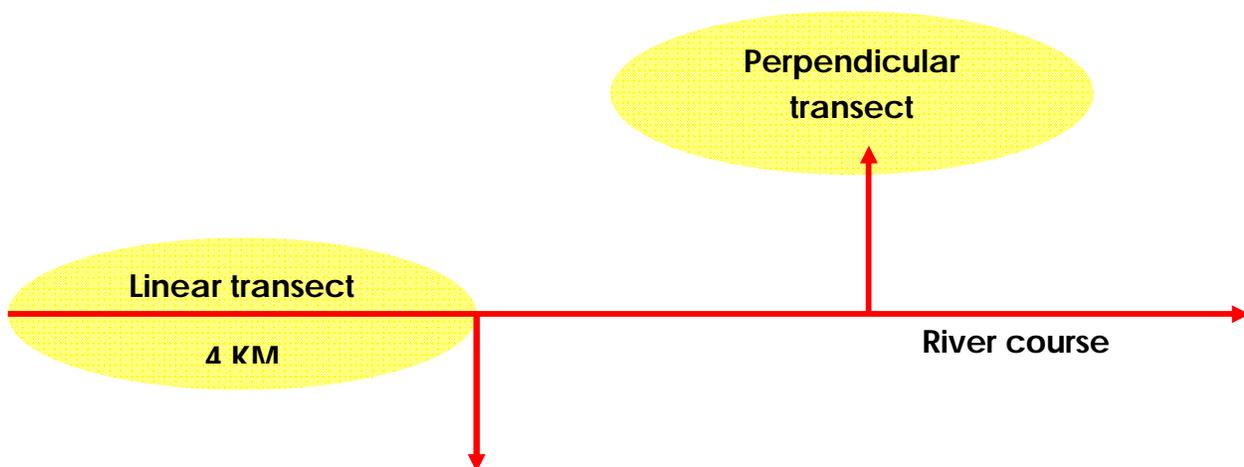
dividing this in to two parts; the villages being concentrated on either ends of the river. The middle part of the river is geographically a gorge with prime savannah land.

Initial surveys were carried out by a multi-disciplinary team of researchers comprising of a wildlife biologist, botanist, community development worker and two trackers. Subsequent surveys were supported by herpetologists, ecologists and social workers.

Villages and settlements are identified along the river course, which primarily utilizes the river water in for any purpose. Starting from the tail end of the river, i.e. close to reservoir a settlement and a village is located; followed by villages abutting the river. Tribal settlements are found in the regions where the river originates. It was found that the villages found in the lower part of the river belong to three different Panchayats (blocks) and on the upper side (origin of river) the settlements and villages are politically managed by two different Panchayats.

Assessment design

The assessment design is an adaptation of the Linear Transect Method. The river course was divided into four km segments. Each linear transect of four-km was appended with a one-km perpendicular transects (fig. 1) to ensure that the assessment captured all the three foci of assessment viz. human settlements and



their artifacts, flora and fauna. In all, 20 (~4 km) river transects and 24 (1 km) perpendicular transects were covered during the survey, rendering it to be one of the most comprehensive assessments of the landscape. It is to be noted though that the mid course of the river is the Moyar Gorge, where the establishment of perpendicular transects was impossible due to the steep slope. The method was christened 'The Centipede Method' primarily to enable local understanding (fig 2).

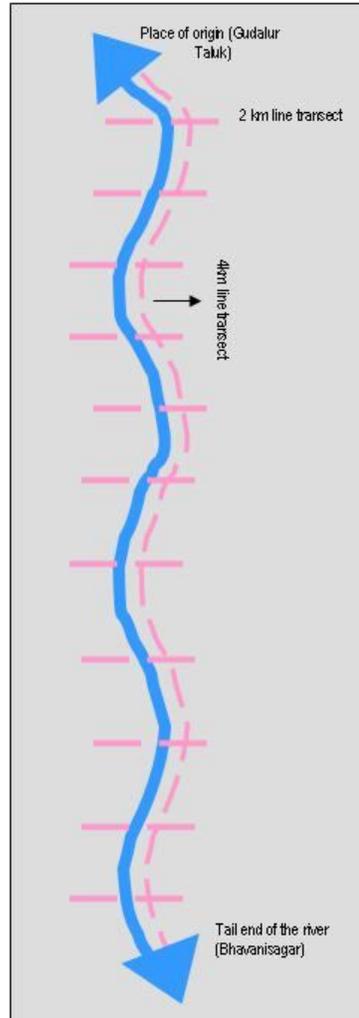


Fig 2 The Centipede Method as depicted to local participants

Socio cultural assessments

On the assumption that proximity would be the key driver to determine the use of River Moyar, it was decided to take into considerations all human habitations within 1 km radius on either banks of River Moyar. Initial surveys reiterated this assumption since human habitations were predominantly adjacent to the river course. The following villages were identified as project intervention sites: Susil kuttai, Boothikuppam, Uppupallam, Gulithuraipatti, Kallampalayam, Allimoyar, Thengumarahada and Pudhukaadu in the lower part or tail end of Moyar river. Doddamoyar, Teppakadu light padi, Teppakadu camp, Teppakadu teak padi, Kargudi, Masinagudi , Moyar on the upper reaches of the river. In terms of Blocks/Panchayats, the villages are part of 5 Panchayats viz. Pungar, Pudubeer kadavu, Thengumarahada (lower part), Masinagudi and Mudumalai (upper reaches).



The team was led by a community organizer and a social scientist; and the assessment included aspects such as demographic details, major and secondary livelihoods, dependency /use of the river, cultural aspects related to the river such as scared sites, totemic riverine species, burial sites, food

resources extracted from the river, multiple use patterns/ conflict with large mammals and riverine fauna etc.

The assessments were followed by village / hamlet specific interactions and meetings. Care was taken to ensure that the participation was egalitarian, and the marginalized voices of women, and the aged was facilitated. The semi-structured interviews were designed in a manner by which information on the livelihood of the people living along the river and an inventory of the usage statistics of river was obtained.

The interactions were followed with focus group discussions with Panchayats and the Gram Sabha to build the basis for the micro planning process.

Flora

Woody plants including lianas, shrubs and trees with girth at breast height (GBH) exceeding two cm were identified on the field and recorded for their frequency of occurrence. During the survey each plant was observed for its vegetative and reproductive morphology for the purpose of identification. Interesting herb species and fungi were also recorded but not their frequency. The diversity and richness can be determined with the data of frequency of plants. The nomenclature of each plant was recorded along with its local names; ambiguous species were later confirmed with standard local flora books by J.S. Gamble, K.M. Matthew, J.D. Hooker and P.F. Fyson. Angiosperm Phylogeny Group (APG II, 2003) system was referred to ascertain the recent accepted nomenclature of the plant identified.

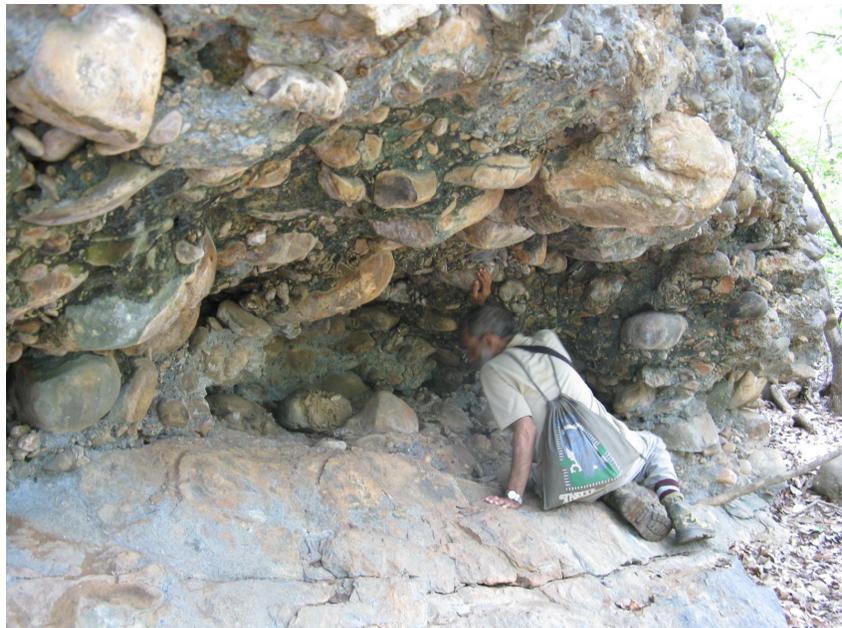


Fauna

For identifying fauna two standard methods were followed, the first was the direct sightings of animals while the second was based on indirect evidences of fauna such as foot print, pug mark, dung, pellets, scats and scrape mark, bird calls, remnants of the kill etc. On each direct sighting, information such as place of sighting, name of the species, group size and GPS location were recorded on the ground. For the indirect methods, animal presence was assumed by the incidence of pug marks, foot print, scat, dung, pellet and scrape mark of the particular animal. On each sighting of the indirect evidence information such as Place of sightings, name of the species, type of indirect evidence (foot print /pug mark/ dung/ pellet/scat) and GPS co-ordinates were noted down.

For assessing reptiles, transects during early hours and late nights had to be carried out. Assessment of fishes was through the method of capture-release using cast nets.

Results obtained from the assessments were pooled, analysed and used for the microplanning process. This georeferenced dataset is also



being shared with the Western Ghats Portal being developed by the French Institute of Pondicherry with the support of CEPF

Table 1: GPS Points of the Transects

S.No	River Transects		One Km Transects	
	Start	End	Start	End
1	11.57668N	11.52165N	11.52142N	11.52055N
	77.03714E	77.03849E	77.02197E	77.01930E
2	11.52375N	11.54593N	11.54620N	11.55335N
	77.00847E	77.00707E	77.00784E	77.00969E
3	11.54620N	11.55113N	11.55686N	11.56942N
	77.00784E	76.99129E	76.95135E	76.95574E
4	11.55105N	11.55686N	11.56942N	11.57716N
	77.99111E	76.95135E	76.95574E	76.96066E
5	11.56532N	11.56942N	11.57938N	11.58711N
	76.97440E	76.95574E	76.94008E	76.94472E
6	11.56942N	11.56942N	11.51463N	
	76.95574E	76.95574E	77.04726E	
7	11.57716N	11.57938N	11.47882N	11.47969N
	76.96066E	76.94008E	77.04601E	77.05519E
8	11.58711N	11.57891N	11.49809N	11.50485N
	76.94472E	76.92411E	77.03445E	77.04110E
9	11.58061N	11.57556N	11.51463N	11.51419N
	76.90766E	76.87995E	77.04726E	77.00576E
10	11.59432N	11.58052N	11.57545N	11.57376N
	76.84688E	76.87483E	76.91191E	76.90288E
11	11.59495N	11.60640N	11.57545N	11.58351N
	76.84631E	76.81951E	76.91191E	76.90790E
12	11.60858N	11.61131N	11.57556N	11.58461N
	76.80880E	76.79374E	76.87995E	76.88066E
13	11.61173N	11.61374N	11.58329N	11.58198N
	76.79311E	76.74841E	76.84684E	76.83781E
14	11.51433N	11.53829N	11.58057N	
	76.53533E	76.54118E	76.87481E	

S.No	River Transects		One Km Transects	
	Start	End	Start	End
15	11.53829N	11.55458N	11.60640N	11.61089N
	76.54118E	76.56324E	76.81951E	76.81348E
16	11.55458N	11.57836N	11.60776N	11.60405N
	76.56324E	76.57867E	76.80638E	76.81514E
17	11.57830N	11.58315N	11.61374N	11.61475N
	76.57874E	76.59697E	76.74841E	76.75478E
18	11.61196N	11.61364N	11.56037N	11.55998N
	76.74941E	76.70490E	76.93357E	76.94273E
19	11.61364N	11.58702N	11.52168N	11.52551N
	76.70490E	76.60252E	76.99908E	76.00653E
20	11.58702N	11.60651N	11.51433N	11.52010N
	76.60252E	76.61705E	76.53533E	76.53986E
21			11.53829N	11.54525N
			76.54118E	76.53443E
22			11.55458N	11.54979N
			76.56324E	76.57131E
23			11.57830N	11.57064N
			76.57874E	76.57297E
24			11.61364N	11.60684N
			76.70490E	76.70073E