

## Final Evaluation Report

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Your Details	
Full Name	Deepthi Narasimhaiah
Project Title	Assessing ecosystem services and community perception on the riparian ecosystems along River Cauvery, south India.
Application ID	23462-1
Grant Amount	£4758
Email Address	<a href="mailto:deepthi.padma@gmail.com">deepthi.padma@gmail.com</a>
Date of this Report	14 <sup>th</sup> March 2020

**1. Indicate the level of achievement of the project’s original objectives and include any relevant comments on factors affecting this.**

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Assessing and valuing provisioning ecosystem service				A total of 128 respondents were interviewed to understand the provisioning services rendered by riparian zones. Provisioning services which were harvested by communities have been documented along with available seasons, quantity, price and other related information.
Understanding community perception and attitude towards riparian forests				Community perception and attitude was assessed through indicators such as knowledge on biodiversity, threats to riparian zones, possible restoration initiatives and willingness to participate in the restoration process.

**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled.**

During the pilot visits for village identification, illegal sand mining was observed in one of the villages, hence study villages were chosen with care so that it would not hinder the study.

**3. Briefly describe the three most important outcomes of your project.**

- i. Although similar provisioning services are available in the riparian zones of the three landscapes, coffee-agrosystem and protected areas extracted higher services than agricultural landscape.
- ii. Agricultural landscapes depended for only two crucial services fuelwood and fodder.
- iii. Coffee-agrosystem communities had a better positive perception towards riparian zone conservation and management.
- iv. The research findings were published as an article in a journal ‘*Ecology, Environment and Conservation*’. Another article is under preparation.

**4. Briefly describe the involvement of local communities and how they have benefitted from the project.**

In all three landscapes, local communities shared their knowledge and also association with riparian zones. Along with local people's preference and also based on scientific review, the plant species were identified for riparian restoration. Local people who were interested in restoration have been identified and the same information has been shared with Nityata Foundation and Forest First Samithi who are working towards restoration.

**5. Are there any plans to continue this work?**

This project supported by the Rufford Foundation enabled us to build baseline information on the potential of riparian zones in providing provisioning ecosystem services. It enabled us to understand how the same resources available across the three landscapes are utilised by communities based on need and socio-economic status.

We aim to continue this work through holistic approach especially dealing with other ecosystem services and also promote restoration efforts in the landscape. We have already built contacts with local communities to continue the work.

**6. How do you plan to share the results of your work with others?**

- My PhD supervisor is a part of a government committee that is preparing a detailed project report on Cauvery and Krishna rivers. We will be proposing the research findings to help in conservation and management of riverbanks.
- The outcome of this project will be disseminated through project report, popular and peer-reviewed articles, presentations in conferences and seminars. Some of the dissemination that was already made are:
  - The project addressed one of the objectives of my PhD thesis entitled '*Riparian ecosystem services across landscapes of river Cauvery, South India*'.
  - N. Deepthi, C. Sunil and B. C. Nagaraja. (2019). *Trees and Ecosystem Services across forest and agricultural landscape along the riparian zone of river Cauvery, Karnataka. Ecology, Environment and Conservation*, 23(3), 384-390.
  - Oral presentation entitled '*Understanding provisioning services of riparian zones along river Cauvery, South India*', at National conference '*Ecology, Economics and Sustainability*' at St. Joseph's College (Autonomous), Bangalore, India, 9<sup>th</sup> March 2020.

- Oral presentation entitled ‘Assessing ecosystem services and community perception towards riparian ecosystems along River Cauvery, South India’ at The Rufford India Conference: Fostering grass-roots conservation in India – A Rufford Initiative organized by Foundation for Ecological Research and Advocacy and Learning (FERAL) and The Rufford Foundation, UK at Goa, India, 18<sup>th</sup> to 21<sup>st</sup> September, 2018.
- Poster presentation entitled ‘Trees and Ecosystem Services of Riparian zone along River Cauvery, Karnataka’ at National Conference on Recent advances in creation, conservation, management and utilization of tree resources for sustainable future organised by College of Forestry, Ponnampet, India, 21<sup>st</sup> to 22<sup>nd</sup> March, 2018.
- Invited talk entitled ‘Why do we need (to conserve) Riparian forests?’ at Regional Natural History Museum, Mysore organised by The Mahseer Trust, United Kingdom, 13<sup>th</sup> February 2018.

**7. Timescale: Over what period was the grant used? How does this compare to the anticipated or actual length of the project?**

The Rufford Foundation grant was used from October 2017 till December 2018. The actual length of the project was till September 2018. However, we required additional time for data cleaning, compilation and analysis.

**8. Budget: Provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.**

Item	Budgeted Amount	Actual Amount	Difference	Comments
Vehicle rent to and from - Bangalore to 3 field sites (Kodagu, Mandya, Muthathi)	506	506		Fully spent
Local transport at 3 field sites	722	722		Fully spent
GPS	337	337		Fully spent
Hard disk/Data storage device	60	60		Fully spent
Voice recorder	96	96		Fully spent
Digital camera	241	241		Fully spent

SD Card (64 GB) + Card Reader	24	24		Fully spent
Field assistant (logistics)	271	271		Fully spent
Volunteer (questionnaire)	271	271		Fully spent
Accommodation	1733	1733		Fully spent
Food allowance	406	406		Fully spent
Questionnaire printing	16	16		Fully spent
Pens, folders, writing pad	12	6	-6	Actual cost was less than the anticipated cost.
Internet and phone calls for logistics	10	12	+2	Spent slightly more than the anticipated cost.
Flyer, brochure, poster printing	36	12	-24	Only posters were printed.
Report printing	12		-12	No report was printed.
Miscellaneous 1. Registration fee for poster presentation at two conferences 2. Bank fees	5	42	+37	Miscellaneous was used for unforeseen finances.
<b>TOTALS</b>	<b>4758</b>	<b>4755</b>	<b>-3</b>	<b>Note: 1£= 83.08 ₹</b>

**9. Looking ahead, what do you feel are the important next steps?**

Since, riparian zones along river Cauvery is a heterogeneous landscape –

- Planning to document other ecosystem services rendered by riparian zones along river Cauvery.
- Planning to bring multi-stake holders on single platform for riparian zone conservation and management along river Cauvery.

**10. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?**

Yes, The Rufford Foundation logo was used in questionnaires for field survey. The Rufford Foundation support has been acknowledged not only in presentations at conferences and publications but also in my PhD thesis for supporting one of the objectives of my PhD research.

Funding support and application details about The Rufford Foundation was shared with a friend Kashimana Ivo who is doing her PhD in Germany. Subsequently, she received a Rufford Small Grant in April 2019.

**11. Please provide a full list of all the members of your team and briefly what was their role in the project.**

The team members comprised of me and the following people:

**Dr. B.C. Nagaraja**, my Ph.D. supervisor, also Associate Professor in the Department of Environmental Science, Bangalore University, Bangalore. Along with me, he is also responsible for designing the study and also engaging with the conceptual underpinnings of the project.

**Dr. M. Paramesha**, Assistant Professor at St. Joseph's College (Autonomous), Bangalore. He gave critical inputs on study design and also sampling strategy in the study site itself. Made local contacts for smooth running of the project.

**Dr. C. Madegowda**, Senior Research Associate at Ashoka Trust for Research in Ecology and the Environment, Bangalore guided in social survey methods.

The field staff named **Mr. Jeevan Naliyammana** (from Coffe-agrosystem landscape); **Mr. G. T. Deepak** (from Agricultural landscape); and **Mr. Shivamadhu** (from Protected Area landscape) have great knowledge of the landscape and helped in local travel and accommodation.

**12. Any other comments?**

On behalf of all the team members, I am grateful to The Rufford Foundation for the financial support especially at the crucial time of my PhD. It helped in generating the baseline data about the provisioning services rendered by riparian zones along River Cauvery and also community perception as well as attitude towards riparian zones. We hope this work will be considered for the river restoration efforts and also frame policies related to riparian zones in India.

We are looking forward to continuing conservation work with The Rufford Foundation support.

Thank you!