

Final Project Evaluation Report

Your Details	
Full Name	D. Adhavan
Project Title	Developing technology for successful transplant of seagrass in India with reference to climate change
Application ID	22673-1
Grant Amount	£5,000
Email Address	adhavmarine@gmail.com
Date of this Report	21/10/2018

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
Identification of degraded seagrass environment				The study area was changed from Palk Bay, Tamil Nadu to Mithapur, Gujarat because of tropical cyclone. Most of the places were inaccessible
Identification of seagrass species at the study area				All the seagrass species in Mithapur area was identified
Developing suitable methodology for seagrass restoration				Different methodologies were tried and finalised a combination of two different methods suitable for Indian waters.
Develop nursery for seagrass				Nursery was successfully developed in the sub-tidal region.
Involving local community in the work				Local community youngsters were involved in developing and maintenance of nursery. Volunteers from schools and colleges were trained in and involved in intertidal survey.
Seagrass survey				Due to non-conductive weather condition, limited area was surveyed.

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

Procurement of underwater camera and its case took long time as the stock was not readily available in Indian market. The underwater camera case was imported from US and the transit process took long time.

The work began with intertidal and subtidal survey at Palk Bay during September 2017 as per the plan. However, due to tropical cyclone, the work was stopped in between. Materials used for the work were washed away during cyclone. The project site was inaccessible for nearly 3-4 months. Later, the project site was changed to Mithapur, in Gujarat after informing Rufford Foundation. Due to poor visibility at Mithapur area, the work was further delayed.

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

- a) Developed nursery for seagrass.

- b) Selected suitable methodology for seagrass restoration.
- c) Documented sea grass species at Mithapur.

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

Local people and volunteers are interested and appreciated the objective of the work.

- Youngsters from local community were involved in developing nursery for seagrass.
- Transportation including boat and vehicle used during the project were hired from local community.
- Volunteers from schools and colleges and youth from local community were involved during intertidal monitoring of seagrass and nursery development.

5. Are there any plans to continue this work?

Yes, the nursery was successfully developed by choosing suitable methodology. Further, restoration of seagrass in the sub-tidal area would help in spreading seagrass bed. This would directly support in increase the population of seagrass dependent organisms.

In continuation to the present work, creating awareness among school, college students and local fishermen community on seagrass and its associated fauna would be focused more.

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

The result and methodologies would be shared through publication in peer reviewed journal. In addition to that, brochures on seagrass and result of the present work will be printed and distributed to forest and fishery departments

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

The funds were used throughout the year, which was what we had anticipated.

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. The value of 1 GBP = 84.44 on 17 July 2017 when the fund was transferred to my account. The expenditure incurred was according to the value of GBP on corresponding days.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Stationery	40	24	16	Few extra reference materials were printed
Camera (Canon power shot G7 X Mark 2) + Underwater camera case	785	959	-174	
Hiring labour	221	110	111	The work was repeated at second site due to tropical cyclone
Staying allowance	250	141	109	Due to repeat of work, staying duration was extended at two different sites
Travel allowance	600	1190	-590	Travel costs were reduced by choosing low-priced mode of transportation to meet the project expenditure as the work was repeated at different site due to non-conductive weather condition.
Boat hiring	710	350	360	More boat base surveys were carried out to selecting suitable nursery site at two different project sites.
Purchase of metal & fibre mesh	830	500	330	Materials were washed away by tropical cyclone and bought once again for another site
Purchase of cement blocks	725	500	225	Materials were washed away by tropical cyclone and bought once again for another site
Purchase of diving mask and fins	138	140	-2	
Hiring of SCUBA gears	700	598	202	Cost varied at different seasons

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

Regular seagrass monitoring, awareness programmes for the local community and students needs focused. The status of seagrass should be documented. Based on the result, seagrass ecosystem should be restored.

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, RF logo is used for the publication entitled "Dynamics and resilience of seagrass community in Gulf of Kachchh Marine National Park, India." accepted by Journal of

Threatened Taxa. The logo will be used further in other publications related to the work.

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

Dr D. Adhavan – Project coordinator and in-charge

Dr R. Chandran – helped in underwater survey and developing nursery

Mr. Ram Kumaran – Diver (underwater survey)

Mr. Malik – Boatmen

12. Any other comments?

Thank you for your support. This funding was helpful to develop and maintain nursery for seagrass restoration.



Left: Construction of nursery at the sub tidal region. Right: Planting of sea grass in the nursery.



Sea grass at the nursery site during end of the project.