

Final Evaluation Report

Your Details	
Full Name	Muhammad Saeed
Project Title	Bio-assessment and Monitoring Guidelines for Margalla Hills National Park, Islamabad, Pakistan
Application ID	27240-1
Date of this Report	31st December 2022

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
1. To update and annotate species inventory of amphibians, reptiles and wetland dependent avian (particularly migratory birds) species of the national park				The inventory of amphibians and reptiles has been updated (<u>published</u>). The inventory of migratory birds has been updated. The manuscript is being drafted.
2. To develop indices of biotic integrity for bioassessment and to establish guidelines for the monitoring of the park based on studied taxa.				<u>Published</u> in a peer-reviewed journal.
3. To engage local community, build capacity of park personnel and support Post-Graduate studies on inclusive wildlife conservation.				A total of 10 MPhil research students were involved; five students (four females) in 2019 while five students (all females) in 2021-2022. Awareness of local community regarding herpetofauna

2. Describe the three most important outcomes of your project.

a). Generation of richness and abundance data on amphibians and reptiles of the park which helped in the bioassessment and establishing monitoring guidelines.

b). Peer-reviewed publication (<https://bdj.pensoft.net/article/61541/>)

c). Sponsorship of 10, of which nine were females, MPhil studies. These will be published in the coming years acknowledging Rufford. This small grant helped execute research in the difficult pandemic time.

d). Awareness of local community regarding amphibians and reptiles of park.

3. Explain any unforeseen difficulties that arose during the project and how these were tackled.

- The project was awarded in January 2019, but activities were started in May 2019. Activities were delayed due to project account opening and funds transfer. As per our institution, a student cannot open a joint account with the

treasurer and as per Rufford revised policy the funds cannot be transferred to personal account.

- This took a while to settle the things. Finally, my research advisor opened a joint account with the treasurer and get the amount transferred. Then all the procurements and billing/ audit had to be carried out as per rules of the institution. Each voucher was sent to PI (research advisor)-treasurer-audit-treasurer and back for the cheque. This caused a considerable delay.
- COVID-19 made things worse in the first quarter of 2020. The project activities remained dormant till 2021.

4. Describe the involvement of local communities and how they have benefitted from the project.

Several villages surround the Margallah Hills National Park. People have inborne fear of snakes and kill snakes either venomous or non-venomous. We provided awareness/precautionary measures regarding snakes to mitigate the killing of snakes.

5. Are there any plans to continue this work?

Yes, I currently joined Islamabad Wildlife Management Board (IWMB) as Assistant Director (Research & Planning Wildlife) that is custodian of Margallah Hills National Park for its protection, preservation, conservation and management. Margallah Hills National Park is facing multitude threats including forest fire, exotic invasive plant species, human-wildlife conflict, tourism, encroachment and climate change.

There is a great need to continue the work for the conservation of herpetofauna and wildlife with the involvement of local community. The human-wildlife conflict can be mitigated in the surrounding areas of Margallah Hills National Park by awareness and education programmes. I look forward to work with The Rufford Foundation in the future. I will design study on park issues and continue my efforts to conserve its biodiversity.

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

- Scientific publications.
- Brochures/ flyers.
- Social media.

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

Margallah Hills National Park has several villages in its surrounding area that depend on NP resources. Human-snake conflict is common, and many non-venomous snakes are killed because of unawareness and inability to identify snake species. Awareness and availability of antivenom for local community can be helpful to reduce the killing of snakes.

The population of migratory birds have reduced due to pollution (solid waste, noise, plastic) and commercial boat activities in Rawal Lake. Restoration of habitats can help to recover population of birds in the lake.

8. 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?

The logo was not used in the publication due to publisher's format. Scientific publications require names of funding agency and grant number. The project award letter was displayed in the lab and research advisor office. Numerous students, stakeholders and faculty members took notice of it.

9. Provide a full list of all the members of your team and their role in the project.

Name	Position
<p>Mr. Muhammad Saeed PhD Scholar, Wildlife Management, PMAS-AAUR (at the time of submission of the proposal) Assistant Director (Research & Planning Wildlife) Islamabad Wildlife Management Board (IWMB), Ministry of Climate Change, Islamabad (Current status).</p>	<p>Team leader Development of project proposal, submission & execution of project, Data collection; involvement & guidance to M.Phil. Students in field, management of project funding e.g., procurement of equipment & supplies, account maintenance, funds disburse organization of field visits; eDNA analysis and report writing.</p>
<p>Dr. Muhammad Rais Assistant Professor, Wildlife Management, PMAS-Arid Agriculture University Rawalpindi (PMAS-AAUR)</p>	<p>Principle Investigator Supervision of project activity, Enrolment and allocation of research topics to M. Phil students, site selection and analysis of data</p>
<p>Mr. Muhammad Waseem PhD Scholar, Wildlife Management, PMAS-AAUR</p>	<p>Research Assistant Data collection; attend to equipment and supplies purchase; organization of field visits; preparation and processing of bills/ vouchers</p>
<p>Mr. Jamal Ahmed Miss Aqsa Shehzadi Miss Farhat Bibi Miss Maira Imtiaz Miss Rida Fatima Miss Aamina Abid Miss Anila Rahim Miss Lariab Khadija Miss Isma Maqbool Miss Ansa Rani</p>	<p>MPhil students Data collection MPhil degree</p>

10. Any other comments?

Thank you for this opportunity and thank you for understanding the delay in project and reporting.



