

Final Project Evaluation Report

Your Details	
Full Name	Emad Dawood Abbas Kaky
Project Title	Conservation planning of Goitered gazelle (<i>Gazella subgutturosa</i>) in the Garmian area of Kurdistan, Iraq: collecting data, mapping distribution, and IUCN Red List assessment
Application ID	23630-1
Grant Amount	£ 5000
Email Address	plxedk@nottingham.ac.uk
Date of this Report	8/11/2017

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
Short Course: Turning location records into usable conservation advice using Species distribution models (SDMs) with Maxent software. Between 24-03-2018 to 28-03-2018.				We ran very intense species distribution modelling using the MaxEnt approach. About 20 participants were involved in this short course from both inside and outside academia.
Short Course: Applying IUCN Red List categories and criteria. Between 29-03-2018 to 03-04-2018				In this course we tried to focus on general information of IUCN Red List criteria, then how to measure Extent of Occurrence EOO Area of Occupancy AOO to apply risk assessment. (15 participants)
Short Course: Spatial prioritization of conservation management, using Zonation framework. Between 04-04-2018 to 07-04-2018				We explained conservation planning and how to use Zonation software for this purpose. The difficulty we faced was the Java application on the lab computers, so I demonstrated it on my computer using projection for the participants. We will try to repeat it later when there is available computers and time (15 participants)
Flyers and poster distribution around three cities 08-04-2018				Through this day we distributed more than 5000 A4 flyers in both Kurdish and English, especially at the main checkpoint entrances to the cities. Then we fixed more than 10 large posters (size 1.5 x 1m) on main roads and crowded areas. Two extra-large free-standing posters (size 2 x 3m) were placed at the main entrance to these cities. Finally, one stand poster indoor 1.5 x 0.70m.
Workshop about the importance of biodiversity in our lives 09-04-2018				This workshop was held in the Kalar Technical Institute Hall. The audience came from academia,

				local authorities and non-profit organisations. Through this workshop we focused on role of biodiversity in our lives, trying to engage local government and environmental organisations as participants in our project in the future. (30 participants)
Two presentations 10-04-2018 about illegal hunting				Both presentations were held in the Kalar Technical Institute seminar Hall, inviting people from local authorities, forestry police, hunters, and local people to explain how illegal hunting will affect our biodiversity future. (more than 50 people in the audience)
Class teaching for environmental awareness 11,12-04-2018				We ran a small workshop at a school to teach about biodiversity and conservation, and our role in protecting endangered species in ecological systems. We then delivered this information for primary school pupils. This workshop was held in Garmain University /Biology department.
Spring field survey – between 14-04-2018 to 10-05-2018 through the field work we try to visit the main 15 locations that expect to be hotspot area in this region (each location two time). The field work will run by two groups.				In spring fieldwork eight people visited more than 25 locations between Kalar, Kifri, and Khanaqeen towns. We surveyed all the locations randomly, and we spotted more than 250 individual gazelles. Most of them were in small populations, and there were more females than males.
Summer field survey – between 01-09-2018 28-09-2018, we will repeat the same things we used in the spring survey.				In the second survey we tried to use both random and line-intercept sampling to estimate the local density. We visited the same locations to confirm the species occurrence in each.

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

Before the project management options were put in a place, we had to address all the possible issues that we might face in the project. We tried to confirm the objectives of outcomes and outputs of this project because these are the key to

success in any project and its evaluation. Even with all these precautions we faced many issues through the project, as follows:

- Because this project is the first in this area about illegal hunting and conservation planning, it was very hard to decide which kind of data and information we have to collect to deliver the project and to measure the management options against the performance indicators. After discussions with the team and experts at the University of Nottingham we decided to tackle this issue by putting some simple questions and ideas about how to collect the data, and which information we have to deliver to the participants and public.
- The day that we started our project there was a huge protest across the Kurdistan region / Iraq against the government because of cuts to employee salaries, and all the government offices and universities were shut. After long discussion with Sulaimani Polytechnic University, Garman University, and the Environmental Protection Organization/ Garmian, we managed to engage a lot of people for the project from academia and public, so we were successful on this point.
- Obtaining cars for the fieldwork was one of our difficulties. Fortunately the Environmental Protection Organization/Garmian supported the project for both periods of fieldwork, but we will face this problem again in the future, because we covered huge areas in our survey. We have to try to secure this issue in future fieldwork by further grants.
- One of the most difficult aspects was to speak with hunters and to interview them. They did not want to introduce themselves as hunters because of the associated security issues. However, we convinced them that our aim was just to solve the conservation issue, to describe how illegal hunting was affecting biodiversity, and to collect data about the gazelle in our region. After this discussion they knew who we were and agreed to talk to us.
- Another difficulty we faced was to find volunteers, but we solved this problem through the Environmental Protection Organization/ Garmian. They provided volunteers and supported the project very effectively.

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

- a) Now we have preliminary information about the locations and population sizes of goitered gazelle (*Gazella subgutturosa*) in this region. We will now map them.
- b) Now there is a variety of people who are familiar with species distribution modelling, how to use GIS for conservation, and what the IUCN Red List is and how to use the basic criteria. Our job now is to monitor the numbers of people with these skills, and to improve them for future projects.

- c) Through this project, many people now understand the basic reasons behind the decline of the gazelle in this region.

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

In this project we tried to engage as many people as possible from academia, NGOs, local authorities, and the public, to show them how biodiversity is important in our lives, and how losing it through illegal hunting unbalances the ecosystem. We tried to raise environmental awareness of such people so that legislation is easier to pass to stop poaching in Kurdistan-Iraq. In addition, we taught and demonstrated new skills about biodiversity and conservation through new tools and approaches, and distributed environment-awareness flyers and posters. We discussed how to work with each other to stop poaching. Our plan is to continue working to rise environmental awareness in this region to protect biodiversity, and to develop and support the skills of local people through different presentations, workshops, and advanced training courses. We are negotiating with Sulaimani Polytechnic University and Garman University to engage some Masters students to work on biodiversity in this region, especially on illegal hunting wildlife trading.

5. Are there any plans to continue this work?

Yes, because this work needs more effort to achieve its aims. We are trying to obtain more funds to continue this work: already we have applied for more grants. We will try in the near future to do more surveys and to find artificial sources of water for gazelles because the area is semi-arid and there is not enough water especially in the summer season. Hence our next job is to provide water as soon as possible because the lack of water makes them easy prey for hunters in summer.

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

First of all we share this report with each of: The Rufford Foundation, Sulaimani Polytechnic University, Garman University, environmental agencies in the Garmian administration, and the Environmental Protection Organization / Garmian. Then, we will elicit feedback from all involved parties and invite them for a final feedback event. Finally, we will publish the final results in a proper journal as a research article when the results are in a suitable format for publication.

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

We tried to follow our activities timetable to finish each activity on time, therefore we were successful in this point, so the times that we provide for each activity was very enough. In addition for that see section 1 for more details.

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
Garmin GPSMAP 78 Handheld GPS Unit	£215	£219	-£4	
Environmental awareness and printing flyers	£1,195	£1423	-£228	
Workshops and training	850	£826	+£14	Stationary + foods + Refreshments
Primary and Secondary School presentations and awareness classes/ (50 teachers for two separate sessions - \$20/day/ teacher)	1,581	£1538	+£43	
Binoculars (Nikon Monarch 5 8x42 Binoculars)	269	238	+£31	
Nikon D3400 Digital SLR Camera + 18-55mm + 6.5mm Fisheye + 55-300mm + 420-1600mm Lens + Filters + 128GB Sandisk Memory + Action Stabilizer + i-TTL Autofocus Flash + Backpack + Case + 70" Tripod.	890	930	-£40	*the currency rate was around £1=1.300\$ between March and April 2018 in the local markets.

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

- Keep going to raise environmental awareness by delivering new skills and training courses.
- Support more people in gaining basic skills in monitoring, species distribution modelling and conservation.
- After discussions with biodiversity experts, decision makers and stakeholders, we will try to design a Protected Areas for this region based on biodiversity hotspots.

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, and we sent The Rufford Foundation the flyers and poster that Rufford logo on it.

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

Emad Kaky - Responsible to deliver the following activities:

- Training courses of species distribution modelling,
- Training courses of how to use IUCN Red List Criteria.
- Training courses of how to Zonation software for conservation planning.
- Leader for both Field works

Mohammed Khalil - Responsible to deliver the following activities

- Workshop about stopping illegal hunting.
- Raising environmental awareness by distribution flyers and poster.
- Filed work activities.

Karzan Abdulla Mohammed, PhD University of Nottingham/ UK.

- Presentation about role of biodiversity in ecosystems.
- Filed work activities.

Fars Zedan, MSc University of Nottingham/ UK.

- Raising environmental awareness by distribution the flyers and posters.

Chia Hassan, PhD Mansoura University/ Egypt.

- Responsible on procurement committee.

Saman Amin, PhD University of Baghdad/ Iraq.

- Responsible on flyers and poster design.
- Raising environmental awareness by distribution the flyers and posters.

Group of volunteers from academic and non-academic (most of them from NGOs especially from Environmental Protection Organization/ Garmian).

- Helping in both filed works.
- Distribution flyers and posters.
- Three of them professional wildlife photographers, and most our photos took it by them.
- Guiding the filed works team for species locations.

12. Any other comments?

All the extra money “£186” paid by our team. As a result, overall everything was good and all the teams’ member been satisfy with the results. Therefore, we try to continuing monitoring gazelle in this region and record everything for future. Also, we try to monitoring the biodiversity in general to find the best a place for conservation to be a protected area.



