



The Rufford Small Grants Foundation Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Martin Stelfox
Project title	Understanding Ghost nets in Pakistan
RSG reference	16873-1
Reporting period	August 2015 – August 2016
Amount of grant	£5000
Your email address	martin@oliveridleyproject.org
Date of this report	12 th August 2016

1. Please 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
Scientifically train core group of divers to train others in the region			Fully achieved	We have trained our target core group and beyond. We have now established a Project Coordinator from this initiative who educates fishers on the issue of ghost gear.
Educational presentation to fishing communities			Fully achieved	Education to over 300 fishers and children in Karachi. Established a level of trust amongst the fishing community of Rehman Goth in Karachi.
Ghost gear Removal			Fully achieved	Although still many areas to clean, we managed to clear 12 km of turtle nesting beach of ghost gear and conducted 20 recovery dives resulting in the removal of around 30 bags (four van loads) of ghost gear from the environment. All gear was recycled in art projects or stored for later transport to be used in construction.
Ghost Gear Atlas		Partially achieved		Continually adding to the catalogue of fishing gear types used in Karachi. We still need to engage with the large scale trawling community of Karachi as well as record fishing gear types in Balochistan state.

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

No unforeseen difficulties arose during the project period.

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

Project Coordinator – Absar Khan

Our initial intention with this project was to gauge a level of understanding on the issue of ghost gear in Pakistan by talking with ocean users such as fishers, dive boat users etc. It quickly became apparent that there was a breakdown in communication between those that use the ocean for recreational use, (i.e. divers, snorkelers etc.) to those that rely on the ocean as a source of protein such as fishers and local NGOs working in the area. To break down this barrier, and increase the level of understanding about the issue of ghost gear, The Olive Ridley Project (ORP) offered educational workshops to fishers, recreational ocean users and local NGOs namely WWF. The workshops focussed on the impact of ghost gear to the environment, the reason why fishing gear becomes abandoned, lost or otherwise discarded and what we can do as a community to tackle the issue. Our first workshop attracted over 50 participants (See figure 1) from all sectors and from this a group of concerned divers willing to collaborate with local NGOs and prevent ghost gear was identified.

Absar Khan was one of the divers attending the workshops, and he was already leading environmental projects associated with waste management in the northern regions of Pakistan so he was quick to take the lead in this project. Absar is an important component in the success of this project and his commitment to reduce ghost gear in Karachi, with the guidance of ORP researchers, has generated a level of trust amongst the fishers of the Rehman Goth village and they call him whenever they lose fishing gear. When called, Absar mobilises a team of divers to locate and recover the lost gear and the team give the gear back to the fishers or recycle the gear if the fishers do not want it, he also organises regular clean up dives at local fishing grounds to prevent further loss of fishing gear through snagging. During ORPs second visit, Absar was provided with the tools and knowledge to educate fishing communities further and his commitment has seen a clear and honest relationship blossom between the divers, local NGOs and the fishers in the area, resulted in over 15 clean up dives, removal of over 30 bags of ghost gear from fishing grounds and beaches (See figure 2), the reuse of ghost gear in art projects (See figure 3) and the education of over 300 fishers and children in Karachi (see figure 4)

ORP - WWF MoU

The Northern Indian Ocean Marine Turtle Task Force (NIOMTTF) an arm of the Indian Ocean South East Asian (IOSEA) Sea turtle Memorandum of Understanding recently recognised ORP as the lead observers working on the issue of ghost gear in the region. The NIOMTTF consists of five signatory countries one of which is Pakistan. The Sindh Wildlife Department and the WWF are both focal points for the conservation of sea turtles in Pakistan. The ORP and WWF have signed into a MoU that focuses on tackling the issue of ghost gear in Pakistan. Through this partnership a comprehensive workplan is under construction that will help guide policy makers, local NGOs, divers and fishers on how best to monitor and reduce ghost gear in Pakistan. WWF will benefit from the knowledge of ORPs work on ghost gear in various

countries within the Indian Ocean region and ORP will benefit from WWF years of experience working with fishing communities in Pakistan. It is hoped that future efforts to tackle ghost gear will be curative and preventative to ensure the future efforts to minimise the impact of ghost gear are tackled at the policy and grass roots level.

Building a level of trust at Rehman Goth fishing community in Karachi

With the help of the Project Coordinator (Absar Khan) and the WWF, ORP have regularly conducted educational classes and clean up dives, resulting in a level of trust with the 800 people living in the fishing community of Rehman Goth. This village uses a range of fishing techniques, including the use of nets and initial dives at their local fishing ground confirmed they do have issues with ghost gear (see figure 5). The communities close proximity to one of Pakistan most significant turtle nesting beaches (Sandspit and Hawksbay) makes them a priority community to engage with and pilot future projects. RSGF project resulted in the Rehman Goth community recovering over 30 bags of ghost gear from surrounding beaches and local fishing grounds and then sending some of this recovered gear to local artists to be used in art sculptures. It is hoped that this pilot project which consists of educational, retrieval and recycling of ghost gear can be replicated to other coastal fishing communities along the entire coasts of Karachi and eventually into the next state of Baluchistan.

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

A breakdown in communication between local divers, NGOs and fishers prevented previous attempts to produce sustainable management plans to reduce or prevent fishing gear becoming abandoned, lost or discarded in the future. This communication breakdown was partly due to a misunderstanding on what causes ghost gear, how ghost gear effects the environment and how ghost gear may affect livelihoods. ORPs first workshop attracted around 50 participants from the diving, snorkelling and fishing sector and this was followed by multiple in-water training sessions on how to safely recover ghost gear and basic marine organism identification. This helped concerned divers better understand the environment and provide the tools and knowledge to help local researchers or NGOs in future underwater surveys including baseline studies to identify success rates of ghost gear management projects. Our educational efforts were carried forward to local fishing communities by project coordinator Absar Khan (See figure 6), and this opened up ideas and discussions amongst divers and fishers on how best to tackle the issue of ghost gear with guidance from ORP researchers. One particular idea that was suggested by fishers and divers was to provide a collection point to deposit old nets so they do not have to throw unusable gear back in the ocean or on the beaches. Fishers were given the opportunity to clean up their local fishing grounds, with the help of a team of divers, which in time will help reduce the amount of wasted catch (ghost fishing) improve the aesthetic of their surroundings and safeguard the fishery for future generations. The project also opened up a community Facebook page



(Olive Ridley Project – Pakistan) currently with 500+ members, which provides a platform for individuals and communities, not necessarily directly linked to the ocean, such as artists and engineers etc. to discuss issues related to ghost gear and come up with ideas on how to combat the issue.

5. Are there any plans to continue this work?

Yes, we plan to continue working towards reducing ghost gear in Pakistan and now that we have established a level of trust amongst the local fishing community of Rehman Goth and currently developing a work-plan in collaboration with Pakistan main NGO (WWF) we are optimistic that our efforts will be sustainable. We plan to engage further with the people of Rehman Goth to better recover and store recovered ghost gear. After a consultation with fishers and divers it was advised to develop centralised collection points near landing sites and frequently visited areas by the fishers so that fishing gear can be disposed of responsibly. This fishing gear can then be repaired and reused or recycled to ensure the gear does not end up in landfill or back on beaches or in the ocean. We will be applying for a second Rufford Small Grants fund to initiate this project. On a broad scale the workplan (currently in draft) between the WWF and ORP will detail realistic ways to manage ghost gear on a larger scale at both the policy and grass roots level and aim to help both commercial and small scale fishers reduce the amount of fishing gear becoming abandoned, lost or otherwise discarded. Examples solutions within the work-plan include correct gear management, gear marking and biodegradable portions of fishing gear, a full and revised work-plan should be ready by November 2016.

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

A survey to identify the different proportions of marine debris along a 12 km stretch of turtle nesting beach was conducted by ORP and its results are currently in write up phase in collaboration with the WWF. It is hoped that the results of this study will be published in a high impact, open access journal. In addition an atlas is currently in development that will allow for anyone in Pakistan or other countries surrounding Pakistan to identify ghost gear. The transient nature of ghost gear makes it extremely difficult to identify where the gear originates from or where it may have been lost. A Facebook group called "Olive Ridley Project – Pakistan" has over 500 members and we regularly post updates and ideas in this community.

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

The timescale was as anticipated no extra time was needed. We used funds from the start of the project (August 2015) and used funds and completed our proposed project by August 2016.

8. Budget: Please 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.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Flight for ORP team	1200	1200	0	Return flight from UK (x2)
Accommodation	680	680	0	In field accommodation (x2)
Visa entry to enter Pakistan	400	400	0	Visa (x2)
Boat rental	800	800	0	Planned for only five days. Infact we were able to go 15 days.
English translation of text leaflets	200	200	0	300 point of contact leaflets distributed to trawling community. Languages included Urdu, Sindhi, Balochi and Pashto
Printing costs	500	500	0	Printing awareness banners, waterproof data collecting protocols and leaflets.
Diving tanks and air fills	200	200	0	Dive tank rental for dives to recover ghost gear along with cost of air fills.
Graphic designer	520	520	0	Design of leaflets, banners and identification atlas.
Logistical travel	500	500	0	Unanticipated cost of fuel associated with travelling between fishing villages and relocating ghost gear to be given to artists for reuse and refreshments associated with first workshop for participants.
TOTAL	5000	5000	0	

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

Our next phase of the project is to continue to work with the local fishing village of Rehman Goth and develop designated collection points to deposit end of life fishing nets (i.e. fishing nets that can no longer be used because of damage or old age) or found ghost gear. This gear will then be recycled and reused. Some of the fishing gear will be sent to recyclers and all money generated will go back into the community and/or some gear will be given to local art schools for the material to be



used in art installations (as is currently practised). We aim to have a self-sustainable collection system of nets in that the community receive a financial benefit in doing so. This benefit could be from fishers reusing the nets to remake products to be sold in local markets or small monetary incentive generated from the recycling of fishing gear.

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

Yes we produced a leaflet that detailed the ghost fishing cycle. Please see PDF attached. In addition all social media posts relating to the Pakistan project mentioned RSGF in Facebook or twitter feeds. Workshop presentations were clearly marked with the Rufford logo.

11. Any other comments?

Thank you for this opportunity and we hope to continue our efforts.