

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. The Final Report must be sent in **word format** and not PDF format or any other format. 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. Please note that the information may be edited for clarity. 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	Mathilde Chanvin				
Project title	Tangkoko Conservation Education: Conservation Education Programme for local communities in North Sulawesi, Indonesia				
RSG reference	16965-1				
Reporting period	Reporting period in the application: 1 st January 2015 – 31 st June 2016 Actual reporting period: 1 st May 2015 – 31 st June 2016				
Amount of grant	£ 5000				
Your email address	tangkokoproject@gmail.com				
Date of this report	08/08/2016				



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
Develop conservation and environmental awareness for local children through school interventions in the villages of north Sulawesi, surrounding the Tangkoko nature reserve and the protected forests of Mount Klabat and Tumpa. Our indicators of success are 50% increase in positive attitude scores towards conservation and the target species <i>M. nigra</i> (comparison of pupils' scores regarding pre- and post- interventions' questionnaires).		X		For school year 2014-2015, we have successfully delivered environmental lessons for 18 schools, involving 417 children from 9 to 15 years old around Bitung (situated next to the Tangkoko Reserve), North Minahasa, (next to Mount Klabat) and Manado (next to Mont Tumpa). For 2015-2016, we have successfully delivered environmental lessons for 23 schools, involving 578 children from the same areas. For each period, we have delivered six lessons in class and one lesson in the field (Tangkoko forest), in order for the pupils to observe their local environment. Concerning the indicators of success, we have delivered pre and post programme evaluation questionnaires for the pupils to assess their knowledge, attitudes and behaviour towards their local environment. The questionnaires are still under analysis and we will provide the Rufford Small Grant with a complete report regarding this matter in September 2016

matter in September 2016.



Enhance our collaboration with the local school staff, providing training for them before the school year to introduce our programme, our education material, and helping them to integrate it into their daily curriculum. Our overarching goal is to compile a suitable conservation education curriculum on provincial level together with the education department of local governments, schools, and our partners, which will aided by TCE's lesson plan and trail. Our indicators of success are a satisfaction rating of 75% on our educational materials and 50% of teachers declaring using all or part of our material for their lessons (comparison of teachers' scores pre- and post- intervention' questionnaire).		We have successfully implemented a training for teacher in July 2015 before the 2015-2016 school year (see progress report). After the establishment of the first Memorandum of Understanding (MoU) with the Education Department of Bitung in June 2015 (see progress report), we have successfully renewed the agreement in June 2016. This will enhance the integration of our environmental lessons in the local curriculum. We have not reached yet the provincial level, but the partnership established at a local level in Bitung with the local authorities is an important milestone which will hopefully help us to reach this goal in the future. Concerning the indicators of success, we have delivered pre and post programme evaluation questionnaires to teachers. The questionnaires are still under analysis and we will provide the Rufford Small Grant with a complete report regarding this matter in September 2016.
Involve the pupils' families into our programme through developing conservation awareness campaigns and events for local communities to spread the conservation message. Our indicators of success are 50% increase in positive attitude scores towards conservation and the target species <i>M. nigra</i> , and 25% in positive attitude towards our project and the willingness of families to participate in it (comparison of families' scores regarding pre- and post- interventions' questionnaires).	X	Indition in copionities (2010)Together with the help of our local partners, we have implemented several events for the local communities during the 2014-2015 and 2015-2016 school periods. The audience for these events were pupils and their parents, local partners and volunteers. Approximately 850 people were reached during these events.2014-2015: - 30/01/2015: Indonesian Primate Day (in various schools around Airmadidi and Bitung) -22/04/2015: Earth Day (in Bitung) - 08/05/2015: Coral Day (in Bangka Island)



-22/05/2015: TCE's Celebration
event (in Tasikoki Centre)
2015-2016:
- 30/01/2016: Indonesian Primate
Day and 5 th TCE's Birthday (In
Bitung's Municipality Hall)
-15/03/2016: Macaque
International Day (in Bitung's
market and schools)
- 25/05/2016: TCE's Celebration
event (in Tasikoki Centre)
Concerning the indicators of
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and post programme evaluation
questionnaires to pupils' parents.
The questionnaires are still under
analysis and we will provide the
Rufford Small Grant with a
complete report regarding this
matter in September 2016.

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

During the two school years covered by the grant, the programme ran as expected and we respected the schedule as stated in the application. However, some unexpected difficulties arose:

- Deity Meikel, the assistant of the local coordinator Nona Diko, left the programme in June 2015. Therefore, we had to hire a new assistant, Fadila Maratade. However, the transition process was not difficult as Fadila was a long term TCE volunteer since 2014 and knew exactly how the programme was running and thus had a strong experience concerning school interventions.
- Several schools dropped out of the programme during those 2 years (SD INPRES Girian, SMK Bahari Bitung, SD GMIM Batu Putih), whereas some other schools cancelled some interventions, or allowed too short time in class for the team to deliver efficient interventions. We could not obtain any reasonable explanation from these withdrawals and cancellations. Despite the Memorandum of Understanding (MoU) with the Education Department and the teachers' training held each year, this issue showed that we have to put more effort into involving school staff in our programme.

Hopefully, these difficulties will be overcome thanks to a new strategy that we will implement starting in 2016-2017: the Head of the Education Department of Bitung invited all the head teachers to read and sign the new MoU, making them aware of their responsibilities towards the TCE programme hosted in their school. Furthermore, we will have single meetings with each head teacher,



making sure that they can provide the TCE local team with a suitable working environment for us to deliver the interventions in their class.

- The training for teachers held before the school was a good way to introduce them with our environment lessons, but wasn't the most efficient way in terms of following up with their involvement afterwards.

Thus we will organise several meeting with all the teachers involved five times per year, in order to receive their comments and feedbacks concerning the lessons, and therefore work closer with them throughout the year. These meetings will be facilitated by the Education Department of Bitung, thus we are hopeful that schools will express a better implication in the TCE programme, without cancellations or drop out.

- At the end of the 2014-2015 school year, TCE still didn't have an office, which made the daily management and coordination between the local staff difficult (which ended with one of them leaving the programme at the end of the school year). To tackle this issue, we now rent an office in Bitung (centrally located between the schools covered by TCE programme), where Nona Diko and Fadila Maratade can store the material and implement meetings and trainings for volunteers. Thanks to these optimal working conditions, the coordination and communication amongst local staff is much more efficient. Thanks to the MoU signed with the Head of the Education Department of Bitung, we also built a small office inside their building. The aim of this office was to provide the teachers and Education Department's civil servants with updates about the TCE programme. However, due to a lack of logistics (the Education Department did not provide the materials we agreed on (such as a computer or electricity connection), this office was not well used. Furthermore, it was located in an isolated area of the building were we did not receive much visit. This is why we will move this office in another area near Bitung, in a hall shared with one of our local partner ("Mata Angin" nature lover club). There we will be able to be closer to the local communities and provide activities with local children during the week end.
- During both school periods, we realised that due to the inflation, the estimated costs of the environmental lessons' impression would be much higher than the actual costs. Thus it was not possible to print them in a professional shop, as we planned. Therefore, the team had to print the booklets in TCE's office with several A3 printers, which is time consuming. Even if we chose this cheaper solution, our expenses have been higher than expected. As for the 2016-2017 school period, we have presented our programme to the "Enhancing the in Sulawesi" (EPASS) Protected Area System programme (http://epassindonesia.org/en/tentag-epass/), whose aim is to reinforce conservation projects around Sulawesi's protected areas. EPASS has realised the importance of our programme for the local communities and the sustainability of the local environment. Thus we will receive financial support from them to print the lessons for all the pupils following TCE's interventions.
- Although we have made several applications, we currently face a lack of funding to be able to implement our education project in 2016-2017. Therefore,



we do not plan to develop our programme in new schools for the following period. This is a difficulty that we face each year and which prevents us to make long-term plans for our programme. We hope to resolve this problematic issue through finding long-term funding over several years.

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

- The first most important outcome of these two past school years was the strong partnership built with the Education Department of Bitung. This collaboration resulted for the first time in the region in a MoU signed during 2 years in a row between them and TCE which has enhanced our presence in local schools and our recognition by most of the head teachers we work with. One important outcome as part of this MoU was to integrate our environmental lessons (created in 2013) to be included in the local curriculum. During the 2015-2016 school period, we have adapted our seven environmental lessons in a formal syllabus (usually used by school teachers as part of their curriculum). One teacher (from the primary school of Pinangunian) delivered our TCE lesson on her own as part of the biology cursus thanks to the syllabus provided to her. In 2016-2017, thanks to the meetings held with the teachers throughout the year, our aim will be to make more of them deliver our lessons.
- The second most important outcome is the area's expansion of the TCE programme thanks to the involvement of several local volunteer organisations and the training of our "TCE ambassadors", who are now in charge of several schools and who deliver our interventions independently in their area free of charge. For example, the "Tunas Hijau Airmadidi" are now in charge of the schools in Airmadidi area and the "Mata Angin" organisation are in charge of the Manado schools. Furthermore, since the 2015-2016 school year, we have trained 10 "TCE ambassadors" who are former pupils who have participated in our programme and who still wish to be involved as volunteers in their schools. Therefore, those 10 volunteers are now operating in several schools in the villages of Pinangunian, Winenet and Makawidey. We are very proud of this achievement, especially since the idea came from the ambassadors themselves. We hope to be able to provide them with support on their journey as young conservationists.
- The third outcome of our daily education activities relates to the evaluation of our programme: how we can help people living close to reserve to better learn about their environment and facilitate the adoption of more positive attitudes towards the forest, the macaques and their endangered status. This long term objective should result within several years in a decrease of the amount of illegal activities such as illegal logging, forest fires and poaching. On a long term basis, our activities should also help to reduce the consumption of wildlife meat, as the children will have a positive influence on their surrounding thanks to the information learnt during the education programme.

Since 2015, TCE's evaluation process is part of a Research Master's degree (MRes) being completed by Mathilde Chanvin at the University of Portsmouth, United Kingdom. The evaluation of TCE programme for the past two school years is still under analysis. We will provide the Rufford Small Grants Foundation



with complete report of the past school year as soon as the analysis is finished. Concerning the other studies as part of TCE's report and MRes programme, we have provided Rufford with the results of a study regarding pupils who were part of the TCE programme in 2013-2014 and who left the programme afterwards (see progress report).

Another study part of the MRes was to assess the level of illegal activities (especially traps) in the research area of the Macaca Nigra Project, and whether it decreases since the TCE programme has been running in the area. We obtained data from the Macaca Nigra Project researchers (who follow the macaques in the Tangkoko forest on a daily basis) concerning the amount of illegal activities documented in their area of research in the Tangkoko forest. We have taken into account the amount of traps found (rats, birds, and wild pigs traps) from January 2011 until June 2016 (the running period of the education programme).

The preliminary results show that overall, there is a very slight decrease of the level of birds, rats and pigs traps during this five years' period, but it does not appear to be statistically significant considering all traps (Figure 1) (r = .10, p = .41) or per category of traps (Figure 2).

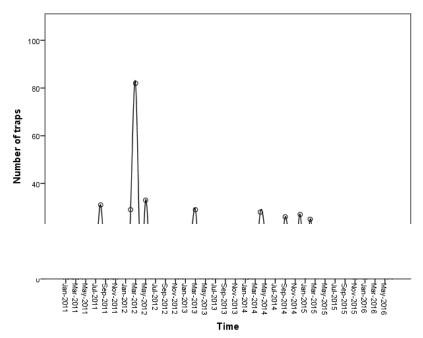


Figure 1: Number of traps found in the MNP research area between January 2011 and June 2016



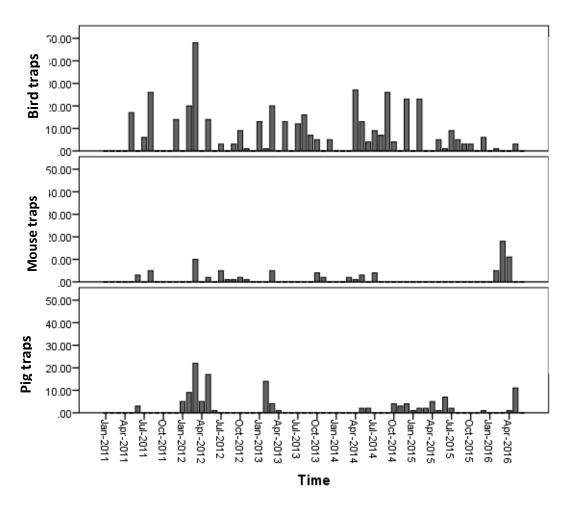


Figure 2: Number of traps found in the MNP research area between January 2011 and June 2016 (per category)

These results show that it is yet difficult to predict whether implementing a conservation education programme in an area where local wildlife is threatened can have a concrete impact on the level of illegal activities. The research area covered by the MNP represents only a small percentage of the total Tangkoko forest area and is close to one village only (Batu Putih). Furthermore, the collection of traps, although systematic, occurs as and when the researchers find them while following the macaques. There is no specific patrol system especially designed to fight poaching yet. Several other villages are situated at the edge of the Tangkoko forest (such as the villages of Pinangunian and Duasudara) where traps are also found (MNP and Selamatkan Yaki, personal observations).

As this study is part of Mathilde Chanvin's MRes research, other factors will be taken into account to develop the analysis, such as the exact location of the traps (whether they are close or far from the village), if we can correlate the amount of traps and the months were the pupils went on Tangkoko trip as part of TCE programme, whether the rain fall measure had an impact on the traps set up in the forest (as it is known that



local communities usually set up traps when the weather is bad and they cannot go fishing in the sea).

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

To make this education programme efficient, we stress the importance of working with local communities and for local communities. As mentioned above, our main target audience are local pupils, their parents, and school staff in villages situated next to protected areas. During the two school periods funded by Rufford, approximately 1000 pupils, 2000 parents and 50 school staff have benefitted from the school activities, and 850 more have benefitted from our awareness events and campaigns.

To help us deliver the TCE intervention, we are provided with the help of around 40 local people and organisations involved in conservation to transfer their knowledge and share their skills and competences with the pupils. Our local partners involved during the 2014-2015 and 2015-2016 school years are:

- The 10 TCE ambassadors and the volunteers from the Nature Clubs of KMPA Tunas Hijau Airmadidi and Nature and Education (Airmadidi), KPA Katswonus, KPA Tisan Bitung (Bitung), Mapala Bumi, KPAB Mata Angin and Pekopeko Club (Manado), as well as Mapala Alaska (Gorontalo) who heled us deliver the school interventions on a daily basis.
- Our partners who help us to deliver specific lessons: the Ministry of Forestry's Conservation Agency of North Sulawesi (BKSDA), the Macaca Nigra Project, Tasikoki Wildlife Rescue and Education Centre and Selamatkan Yaki.
- The local guides who helped to accompany the pupils on the field trips to the Tangkoko forest.

TCE programme could not be as developed and efficient as it is now without the implication of the local volunteers and organisations mentioned above. Thanks to their dedication and hard work, we can work towards letting the volunteers, ambassadors and local teachers being in charge in some villages where TCE is well established, and focus on developing our activities in new schools.

5. Are there any plans to continue this work?

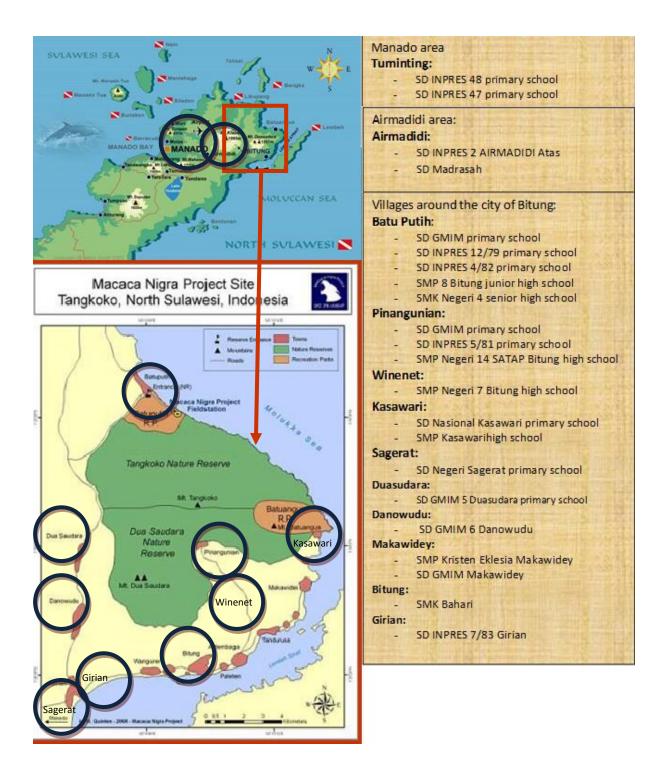
TCE has existed for 5 years and we wish to continue our project for many years to come as we still witness threats in the protected areas we cover. In order to be efficient, we need to continue our efforts in the long run and continue to regularly assess changes in habits, attitudes and knowledge. However, due to the lack of funding for the 2016-2017 school year, we will not extend the programme as much as the previous years. We will only add one school in Manado, where the teacher can deliver the interventions thanks to the syllabus provided by TCE. Until we succeed to secure enough funding, we will focus on enhancing the role of TCE ambassadors,



volunteers, as well as increasing the number of teachers who can deliver the TCE interventions in their classes.

The schools and villages involved for the 2016-2017 are described in the figure below:

Map of North Sulawesi (copyright: Mike Smith - Divex Indonesia) Map of Bitung area (copyright: Macaca Nigra Project)





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

We share our education materials locally with the Education Department of the areas we work as well as the teachers. We also share our materials with other national and International education conservation organisations: We are currently part of the Primate Education Network (PEN: <u>http://www.primateeducationnetwork.org/</u>), a community and collaboration platform for primate educators worldwide. Through this network and website, we have shared our education resources (environmental lessons and evaluation questionnaires) with other organisations working in the field of primate education.

Back in May 2015, TCE received a prize from PEN, were the competition was about writing an article about "Lessons Learned" in conservation education programmes. This covers experiences, challenges, obstacles and solutions to share and benefit from the experience of other organisations on what works well and what needs improvement. We described the project's early stages and the benefits of the research implemented to evaluate and improve TCE's impact (see full article here: http://www.primateeducationnetwork.org/lessons-learned-contest-winners).

Articles about our activities are regularly submitted in local newspapers. We have also recently given an interview in an Indonesian environmental website (Mongabay) to share our best practices: <u>http://www.mongabay.co.id/2016/06/29/mathilde-chanvin-mengubah-masa-depan-lewat-pendidikan-konservasi/</u>. Thanks to this article, several teachers from Indonesia wrote to us in order to better know about our programme and how they could deliver such interventions in their classrooms.

Finally, thanks to the data analysis of our evaluation questionnaires, and in the context of Mathilde Chanvin's Research Master's programme in the University of Portsmouth, we will disseminate our findings in various peer-reviewed scientific journals, if possible in open-access, to ensure a broad readership and facilitate access to other conservation and education NGOs. As recipient of a Rufford grant, we are about to submit our first publication: **"The impact of conservation education on parents' and teachers' knowledge, habits and attitudes towards their local environment in North Sulawesi"** (Mathilde Chanvin, Sherria Hoskins, Muhammad Agil, Nona Diko, Jérôme Micheletta, Antje Engelhardt, Bridget M. Waller) in August in the Indonesian Journal of Natural History. More article are planned to be published together with our local partners.

Mathilde Chanvin has presented the TCE project as well as the results from her different MRes studies in various academic conferences and public events such as:

- The Primate Society of Great Britain (PSGB) Spring Meeting at the University of Roehampton, UK (March 2015) – Poster about "The efficacy of a children's conservation education programme to influence the parent's, knowledge, habits, attitudes and engagement".



- Postgraduate Presentation Day at the University of Portsmouth, UK (December 2016) Presentation about "The efficacy of a conservation education programme to influence children's, parents and school teachers' knowledge, habits and attitudes towards their local environment".
- International Macaque Day at the University of Surrey, UK (March 2016) Exhibition about the TCE project.
- Macaque Awareness Day at the Owl and Monkey Haven, Isle of Wight, UK (May 2016) Exhibition about the TCE project.
- Science Together Conference at the University of Portsmouth, UK (July 2016) Presentation about "Assessing knowledge, attitudes and behaviour of school pupils 1 year after their participation in a conservation education programme in North Sulawesi, Indonesia".
- Public conference in Amiens Zoo, France (August 2016) Presentation of the TCE project.

Finally, a presentation will be held at the Francophone Society of Primatology (SFDP) meeting in Rennes (October 2016) about "The impact of a conservation education program in North Sulawesi, Indonesia, on the participants (children, parents, teachers) and their local environment".

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

We used the Rufford Small Grant from May 2015 (when we received the grant) until June 2016 (when we have finished our 2015-2016 school year). The period we originally planned to use this grant was 18 months from January 2015 to June 2016. However, as we received the grant in May 2015, we have used other funding to cover the financial costs before this period. Therefore, we have a decrease of the costs concerning some categories due to these 6 month difference between the two budgets.



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.

Prices are given in British Pounds. The rate used id $\pounds 1 = IDR17000$

Item	Budgeted Amount	Actual Amount	Difference	Comments
TCE's coordinators transportation: Motorbike and car rental, gasoline (Education syllabus meetings, school interventions, school staff training, final event)	3235	3266	+31	The actual amount is approximately the same as the budgeted amount as we decided in July 2015 to buy a motorbike for TCE (whose credit was more expensive than the usual monthly rent). Furthermore, the constant rise of gasoline's price made the gasoline and car rental costs more expensive than planned.
Pupils and teachers transportation: Bus and pick up rental (school staff training, field trips to Tangkoko and Tasikoki, final event)	3520	1805	-1715	This important difference is justified by the fact that Rufford didn't cover the Tangkoko trips for the 2014-2015 school period (planned in February 2015). Furthermore, we received some support from the transportation department of North Minahasa who provided bus for pupils to Tangkoko trip for a reduced price.
TCE's coordinators salary	4185	4431*	+246	This difference is justified by the fact that we had to hire extra people on a punctual basis to help TCE deliver the interventions, the evaluation questionnaires and print the environmental lessons.
TCE's coordinators food expenses (when outside the headquarters)	810	611	-199	Even though this difference is justified by the 6 months difference between the planned and actual budget, we spent more money than planned on the food expenses due to the hiring of more staff during these two school periods.
Partners and schools' food expenses (school staff training, final event)	470	297	-173	This budget difference can be explained by the fact that our partners help with the food expenses during the school staff training in 2015.



Total received by Rufford Small Grant Foundation	5000			
Total	14485	13920	-565	
Promotion material (T-shirt, posters, stickers, banners)	275	237*	-38	This small difference is justified by the fact that TCE received discounts when printing posters and banners.
Communication expenses (phone recharges, modem, stamps)	145	252	+107	This difference can be explained by the fact that we had to buy more phone recharges than planned for TCE staff and volunteers.
Edition and printing of the environmental lessons	500	1087	+587	This important difference is justified by the fact that we underestimated the cost of the ink, paper and cartridge needed to print the lessons.
Stationeries, pedagogical material (books and games) and photocopies	265	413	+148	This difference is justified by the fact that we bought games to reward the more motivated pupils of TCE programme during these two periods. Ecofunopoly is an environmental game created in Indonesia where some components are made from recycled material (https://ecofuncommunity.wordpress.com/ecofunopoly/)
Office expenses (rent, electricity, furniture, small equipment: printers)	565	1316	+751	This important difference is explained by the fact that we decided to rent an office for TCE, and to buy several printers in order to print the environmental lessons in the office rather than in a shop (which was much more expensive)
Field material (binoculars, first aid kit, audio recorder)	175	0	-175	We didn't buy any of these materials as we already had a first aid kit beforehand. Furthermore, a private donor offered a pairs of binoculars to TCE programme.
Local guides fees (school interventions and field trips)	340	205*	-135	The difference is justified by the fact that some guides kindly accompanied the school pupils to Tangkoko for free in order to support the TCE activities.



As stated in the application, the funds received from the Rufford Small Grant Foundation (£5000) were mainly used for the TCE local coordinators' salaries, the local guides' fees and the promotion material (mentioned with a star * in the budget). As we didn't buy field material (requested to be covered by Rufford as mentioned in the application), we used the remaining money from Rufford to buy Ecofunopoly games.

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

The most important next step is for our project to urgently find funds in order to support our upcoming activities for the 2016-2017 school year. We plan to apply to various organisations together with the Macaca Nigra Project, such as for example the Prince Bernhardt Foundation, Primate Conservation Inc., the Francophone Society of Primatology. Until we receive financial support, the next important step is to update and print our environmental lessons in order to be able to provide the teachers involved with an updated syllabus, and start training our staff, volunteers and ambassadors for the new school year period to come.

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?

We have used the RSG logo in our power point presentations, posters given to schools regarding Tangkoko wildlife. We also have used the logo in our information letter given to the local communities, media and our local and international partners.

During our presentations, conferences and other participation in media interviews, we have always mentioned our partners and funding sponsors, including the Rufford Small Grants Foundation.

11. Any other comments?

We are very grateful towards the Rufford Small Grant Foundation for its financial support, especially because this was a one-off grant that didn't fit in the application criteria. This grant has helped us enormously to implement these two school years.











Pictures left to right, top to bottom: Fadila Maratade with the pupils; Nona Diko and the pupils in class; Pupils from Manado and Nikki from the Macaca Nigra Project with their environmental lessons; Pupils theatre play during TCE celebration event, Tangkoko trip with the Macaca Nigra Project; Tangkoko trip with the Macaca Nigra Project 2; Trip in the Batuangus forest; TCEs ambassadors from SMP 7 Bitung Nurul Ragilia Berdame, Alan Duaulu and Fajar Ibrahim & TCE celebration event - Group picture.