

The Rufford Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford 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	Nurul L. Winarni
Project title	Building and mapping the indicator of biodiversity ecosystem along the park boundary
RSG reference	14946-2
Reporting period	10 April 2014 – 9 April 2015
Amount of grant	£6000
Your email address	nwinarni@gmail.com
Date of this report	6 April 2015

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
Objectives 1. Monitoring biodiversity ecosystem services along forest edge			Yes	Surveys have been conducted, data have been collected and summarised
Objectives 2. To identify local perception on the occurrence of biodiversity ecosystem services within forest edge			Yes	Postcards containing representatives of biodiversity provider of ecosystem services were distributed along questionnaires to people around the study area.
Objectives 3. Integrated participatory mapping of biodiversity ecosystem services			Yes	Participatory mapping was conducted in conjunction to local farmer's group meeting. In addition, a beta version of a game board of identifying ecosystem services was established and tested at local elementary school

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

- For objectives 1 , climate was certainly the most crucial factor affecting time of data collection, particularly for bat survey. Timing of the survey was adjusted to handle this factor. We had to divide the survey into two parts, July-August 2014 and March-April 2015. Therefore, time was so limited to ensure covering the whole transects.
- Edge of the Bukit Barisan Selatan National Park is mostly local people's garden which is subjected for land clearing or changing vegetation. As in the previous Rufford (Rufford 1st) grant, changing crops were observed. In some area, cacao plants were changed into corns. However, these changes gave dynamics to the birds and bats recorded.
- Student's time working on the project sometimes were not fitted with the schedule of the activities. Schedule was adjusted to meet university and project schedules.

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

- Information on biodiversity ecosystem services are monitored for Bukit Barisan National Park. Results have been presented as 3 oral presentations (project leader and two students) in National Conference of bird scientists and birdwatchers in Indonesia, Bogor, 14 February 2015.
- The data provide information on the presence of bird and bats community functioning as pollinating agent and seed disperser. Their presence ensure the integrity of the forest cover of the park and guarantee that the natural regeneration system of the forest is working.

- Local perceptions on birds and bats community are changing. Through this project, people just realized that some of their crops are produced because of the presence of these species.

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

Local communities were involved in filling up questionnaires and participatory mapping. Questionnaires were accompanied by post-cards containing pictures of biodiversity representative's provider of ecosystem service such as bird, bat, bee, and butterfly species. The postcard was then given to community so that they can identify them in their garden whenever they see it. In addition, we also conducted participatory mapping with the community. A base map was given where they added points of crop type, river, or any biodiversity species in their area.

Information that we obtained from previous and this current project was then summarised into a board game based on snakes-and-ladders game which integrates questions of where people live in terms of ecosystem service (near forest, near park, etc.), and how do they get essential food (fish, vegetables), and whether they grow edible plants in their home. The game has been tested in an elementary school at Pemerihan village.

5. Are there any plans to continue this work?

Yes, we are hoping to continue to influence people in applying 'green' agriculture by enhancing better agriculture that both support biodiversity as well as increasing crop production. We are also hoping to connect biodiversity ecosystem service and climate change. Climate change is an important issue and addressing people's perception on seasonal calendar may increase our understanding on overall ecosystem service and food security in rural area.

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

Social media coverages are thought as one of the effective messages to the higher educated level of community. This year we established:

- Blog entitled "Hey! They make my durians fruiting!" (<http://bioecoservices.wordpress.com>). This blog at first was in both Indonesian and English, but then we tried to use English to cover wider community. Authors are all team member including students. This blog tells about our experience in the field, general information on biodiversity ecosystem services, photos of wildlife captured in the field and related activities.
- Facebook page <https://www.facebook.com/groups/319934704822027/>. Up to now, we have 115 members. In this Facebook page, we posted and shared stories on biodiversity ecosystem services
- Students will also produce an infographic of research that they conducted which we'll be distributed through website and social media

In addition, as usual we will also send reports to national park office and related institutions

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

April 2014 – April 2015, as targetted although some of the schedule was adjusted due to several constraints such as climate or university schedule.

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
Awareness material	180	175	5	
Communication	250	258	-8	
Field assistants	600	1037	-437	Additional guides needed and additional time to hire assistants
Field supplies and equipment	52	97	-45	Additional field supplies needed
Local travel	1020	1108	-88	Local travel needed, including gasoline which price was raised this year
Meals and accommodation	855	1062	-207	Local meals and accommodation is needed
Airplane tickets	750	0	750	Not used. We used bus and ferry instead and thus move to local travel
Stationeries	50	63	-13	
Photocopies and printing	50	24	26	
Principal investigator	800	800	0	
Team member	1300	1276	24	
Student stipends	93	100	-7	
Total	6000	5999	1	

Some of the unused costs such as airplane tickets were used for other expenses such as local travel, field assistants, and meals and accommodation which costs more than expected. Prices have been going up in the last couple of months before the project ends. In addition, increase in expenses such as field assistants, local travel, and meals were due to adjustment of student's and university schedule.

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

Improving community awareness and works which may answer the cost of crop production related to biodiversity ecosystem service, climate change, and 'green' agriculture.

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

Yes, logo was used during oral presentations at national conference and all material produced during this project such as postcards and game board. Logo was also put in our blog "Hey! They make my durians fruiting!" (<http://bioecoservices.wordpress.com>).

11. Any other comments?

We are particularly satisfied with our results and very much grateful to Rufford for funding this project. Local community was more aware of work that we done, biodiversity, and how biodiversity can contribute to their well-being.