

Final Project Evaluation Report

Your Details	
Full Name	Iyan Robiansyah
Project Title	Population assessment of endemic plants of Mount Salak, West Java, Indonesia
Application ID	25567-1
Grant Amount	£4,973
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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
Recent status of distribution, population size and structure as well as habitat preferences of five endemic plants in Mount Salak				<p>The distribution of all target species in Mount Salak was assessed using 11 line transects with a total length of 44.76 km. Human settlements, agricultural fields, and introduced tree plantations (<i>Pinus</i> sp. and <i>Maesopsis eminii</i>) have reached high elevations in Mount Salak and pushed the natural forest boundary mostly started at above 700 m asl. This past forest conversion was the reason that the line transects used in the present study was located around 710 m asl at the lowest.</p> <p>From five target species, none were located during the survey. As <i>S. bogoriensis</i>, <i>C. kipella</i>, <i>M. bogoriensis</i>, and <i>S. biflorum</i> used to be found below 700 m asl, an area with high level of anthropogenic activities, past habitat loss and resources extraction was believed to be the main cause of the absence of these species. For <i>R. wilhelminae</i>, the cause was unknown. The species was reported to be found at 1350 m asl and thus habitat loss was not a serious threat to the species. Further extensive survey is needed to confirm our findings.</p>
Updated conservation status of the endemic plants according to IUCN Red List Category and Criteria				<p>Based on the results, the proposed new status of the target species was as following:</p> <ul style="list-style-type: none"> -<i>S. bogoriensis</i> Critically Endangered (CR) A1c; (The current status is CR B1+2c) -<i>C. kipella</i> CR A1c (The current status is Endangered (EN) B1+2c) -<i>R. wilhelminae</i> CR A1c (The current status is CR D) -<i>M. bogoriensis</i> CR A1c

			(The species is currently unassessed) - <i>S. biflorum</i> CR A1c (The species is currently unassessed)
Detailed information on threats from anthropogenic activities and invasive species that could threaten the endemic plant species			We did not observe major anthropogenic activities during the fieldwork, except small habitat conversion observed at one transect and minor tree cutting by local people for opening new legal hiking track. Furthermore, two invasive species were observed: markisa (<i>Passiflora</i> sp.; Passifloraceae) and harendong bulu (<i>Clidemia hirta</i> ; Melastomataceae). While the first species was only found at one transect, the second one was abundant and observed at all 11 transects. For this reason, the distance of each individual of harendong bulu was not measured and thus the density was not estimated.
Comprehensive recommendation regarding conservation of the endemic plant species and their habitats			To conserve the endemic plant species of Mount Salak, we recommend the following actions: Keep the protection level of Mount Salak as the current state or even better. We observed very minor threat from human activities, indicating a good protection state of the forest Start to assess in detailed the distribution of the invasive species markisa (<i>Passiflora</i> sp.). The species has already became major problem in Mount Gede Pangrango National Park, and may soon also happen in Mount Salak if no control and management measure was undertaken. For the harendong bulu (<i>C. hirta</i>), immediate actions have to be implemented. Although the species seen to be present in the study site without causing observable changes, Global Invasive Species Database (http://issg.org/database) stated that within the next 30 years the impact of this weed on native species and ecosystems is predicted to be devastating. Survey other areas of Mount Salak, especially in the side of Sukabumi

				Regency. This survey is needed to confirm the population status of the all target species that were unable to be located in the present study.
Leaflets containing all important information of the endemic specie to be disseminated to the local management authorities, visitors of MHSNP, and public in general				Leaflets have been created and are ready to be distributed to the stakeholders. It has also been posted in my own social media page (https://m.facebook.com/story.php?story_fbid=10217783539682253&id=1294498434). The soft file of the leaflet is attached to this report.
A draft of scientific publication will be produced to be published on a prominent international journal				Draft of scientific paper entitled "An urgent conservation call from endemic plants of Mount Salak, West Java, Indonesia" has been written and is ready to be submitted. Additional papers on diversity of <i>Saurauia</i> and <i>Rhododendron</i> of Mount Salak are in preparation.

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

Demanding terrains (i.e. steep slope, narrow ridge and high elevation up to 2300 m above sea level) on Mount Salak is the main difficulty encountered by the project team. To overcome this, the fieldwork was conducted during dry season so that the forest floor was not slippery. By applying this strategy the vegetation analysis could be carried out efficiently and safely. A new problem, however, arose when conducting the survey during dry season: limited water supply up on the mountain. For this reason, we must bring more water supplies when climbing the mount. Consequently, more porter was hired to bring this extra water supply.

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

The three most important outcome of our project are:

1. The most current information on the population status of the five target species.
2. Updated conservation status of all target species according to the IUCN Red List Categories and Criteria.
3. Information dissemination through leaflet and scientific paper draft.

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

During the project, we closely worked with *Mitra Taman Nasional* (national park partner), a group of local people who works together with the national park managing and protecting the forest. All local guides and porters involved in the project were the member of this group. In addition to the fee their received, they have benefited from the project through gaining new information about the presence of endemic plant species in their forest.

5. Are there any plans to continue this work?

Yes, they are. We are planning to conduct further surveys of all the species in unsurveyed areas in Mount Salak and in Pelabuhan Ratu (for *C. kipella*).

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

We plan to share the results of this project through several ways:

- a) Sending the report to the management authority.
- b) Creating leaflet about the endemic plant species in Mount Salak.
- c) Publishing the results in the seminar and scientific journal.

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

The grant was used mostly during the first semester of the project (July-December 2018), and was used to cover fieldwork expenditures, soil analysis, and herbarium identification. This timing was similar to the initial schedule set in the proposal.

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 (initial plan)	Budgeted Amount	Actual Amount	Difference	Comments
First aid box	15	15		Spent according to the budgeted amount
Local transport (1 car x £28/days x 10 days)	280	800	+520	The price of rented car was £40/day. As the total number of project member increased (8 persons), we rented 2 cars for 10

				days.
Reports, Leaflet and publication draft production	330	330		Spent according to the budgeted amount
Materials for soil and herbarium preparation	200	200		Spent according to the budgeted amount
Plant material collection fee to be paid to the national park (100 specimens x £2.7/specimen)	270	108	-162	We collected only 40 herbarium specimens
Herbarium identification fee (100 specimens x £2.7/ Specimen)	270	108	-162	Total number of herbarium to be identified was 40
Soil sample analysis (100 samples x £6/sample)	600	186	-414	We collected and analysed only 31 soil samples
Home stay at the nearest village for 5 persons (2 home x £19.4/day x 30 days)	1166	776	-390	We rented 2 home stays only for 20 days.
Food during the fieldwork (5 person x £8/person/day x 30 Days)	1200	1200		We were able to manage the budget for 8 persons
Local guide and porter (2 person x £10/day x 30 days)	600	1200	-600	In addition to one local guide, We had to hire more porters (3 persons) as we had to carry more water supply
Entry permit to the study site (3 person x £14/person)	42	42		Spent according to the budgeted amount
Total	4973	4965	-8	Exchange rate: 1£=18,000 IDR

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

The most important next step is to submit the assessment results to the IUCN Red List and update the conservation status of all target species. Furthermore, disseminating the results through both popular and scientific publication is also important to inform public and increase their awareness about the current status of the endemic plant species in Mount Salak.

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?

We used the logo in the leaflets and the presentation file that was presented internally in the Bogor Botanic Gardens. We also put the name of the foundation in the acknowledgment section of all the scientific papers.

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

Iyan Robiansyah

Plan and manage the fieldwork, analyse the data (population data & density estimate), assess the species against all criteria of IUCN Red List, and write the report

Sri Ulie Rachmawati

Record the distance data, analyse the data (population data & density estimate), assess the species against all criteria of IUCN Red List, and write the report

Harto

Identify the target species in the field, measure dbh of trees, make herbarium specimens,

Otang (National park officer)

Guide all the team during the fieldwork, and help Mr. Harto identifying the plant species

Odih (Local guide)

Assist and show the right tract in the forest, carry the logistics

Ahda Madun (Porter)

Carry the logistics

Yopi (Porter)

Carry the logistics

Marbun (Porter)

Carry the logistics

12. Any other comments?

During the survey we were able to identify seven species of other *Saurauia*. Furthermore, although we could not locate *Rhododendron wilhelminae* and *Schizostachyum biflorum*, five species of *Rhododendron* and two species of *Schizostachyum* were successfully identified. List of these species and their density estimate were presented in Table 1.

Table 1 List of *Saurauia*, *Rhododendron* and *Schyzostachyum* species found in Mount Salak along with their density estimates (D) and standard error of mean (SEM).

No	Species	IUCN Red List Status	Observed individual	D	SEM	95% Percent Confidence Interval
<i>Saurauia</i>						
1	<i>S. cauliflora</i>	Vulnerable	96	2.36	1.25	0.79-0.05
2	<i>S. blumiana</i>	Unassessed	24	0.17	0.16	0.027-1.05
3	<i>S. glabra</i>	Unassessed	121	2.3	1	0.93-5.77
4	<i>S. natalicia</i>	Unassessed	15	1.2	1.2	0.18-8.09
5	<i>S. nudiflora</i>	Unassessed	129	2.3	1.32	0.75-7.16
6	<i>S. pendula</i>	Unassessed	4	0.02	0.02	0.003-0.12
7	<i>S. reinwardtiana</i>	Unassessed	2	0.11	0.1	0.017-0.69
8	<i>S. rosea</i>	Unassessed	4	0.15	0.15	0.02-0.95
<i>Rhododendron</i>						
1	<i>R. album</i>	Vulnerable	11	0.24	0.24	0.04-1.59
2	<i>R. citrinum</i>	Unassessed	39	1.18	0.91	0.26-5.39
3	<i>R. javanicum</i>	Unassessed	147	3.6	1.74	1.3-9.96
4	<i>R. malayanum</i>	Least Concern	243	5.07	3.8	1.14-2.49
5	<i>R. retusum</i>	Unassessed	121	3.3	2.3	0.78-13.9
<i>Schyzostachyum</i>						
1	<i>S. blumei</i>	Unassessed	124	1.19	0.39	0.58-2.45
2	<i>S. brachycladum</i>	Unassessed	42	0.27	0.14	0.09-0.83



Leaflets