

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 | Nguyen Van Quan |
| Project title | Assessment of the marine and coastal ecosystem services and linkages with the poverty alleviation in Thua Thien - Hue province, central Vietnam |
| RSG reference | 32.10.08 |
| Reporting period | Final report |
| Amount of grant | £6000 |
| Your email address | quannv@imer.ac.vn , fishhio@gmail.com |
| Date of this report | September 15, 2010 |

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 |
|--|--------------|--------------------|----------------|---|
| Having a database about the current status exploitation of the natural resources, human and natural threats that influence on the ecosystem services of typical marine/coastal ecosystems (coral reefs, mangrove forest, seagrass beds and lagoon system) in Thua Thien – Hue province | | | X | Two comprehensive surveys were carried out for evaluation purposes of the key marine/coastal ecosystems in Thua Thien Hue province. Most marine ecosystems (coral reefs, mangrove forest, seagrass beds) are under threat by the human activities (fishing practices, industrialisation and aquaculture activities). Abnormal weather in Thua Thien Hue province such as the automatic opening and closing of the Thuan An inlet causes increasing/decreasing of water salinity inside the Tam Giang – Cau Hai lagoon. Common critical natural phenomenon such as tropical storms and floods occur more frequently that heavily damage the health of ecosystems in Hue province. |
| Assessment of the linkages among marine/coastal ecosystem services, their benefits and values with the mitigation of natural hazards and poverty reduction of the local communities depending on exploitation and utilisation of the ecosystem services. | | | X | There were strong linkages between loss/degradation of marine ecosystems and the poverty rate. There are 100,000 people living in the coastal villages earning their living by the capture fishery sector in five districts. However, the money earned monthly in range of \$10 at the intensive practice fishing (in accordance with the ecosystem functions loss) and up to \$25 per month at the moderate fishing areas (ecosystem functions maintained at moderate condition). Tam Giang Cau Hai lagoon (contains large area of seagrass beds) plays as the main sources of income for fishermen living around. However, with reduction of the cover area of seagrass beds, the quantitative of fishing yields also drops (poverty rate in 2003 accounted by 50.03% and 62.3% in 2009 by the Vietnamese standard for the income per head of less than \$15 per month). The number of deaths caused by floods normally related with the cutting down of upstream rainforests and transforming of mangrove forest to the aquaculture ponds. In 1999, 352 deaths were caused by floods and this decreased to eight in 2005 due to enhancement of the storm prevention procedures by the Thua Thien Hue government. |

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|--|--|---|--|
| <p>Enhancing the local knowledge about understanding how the ecosystem works and influencing their lives, involving the local people to joint the natural conservation activities in the future.</p> | | X | <p>Due to limitations of the budget, the research team was not be able to carry out the broader scale activities in the public awareness programme. However, we concentrated much on the fishermen who directly exploit the ecosystem services. Several approaches have been applied such as writing of the manual guide for alternative livelihoods through promoting safe marine aquaculture. Some target species were promoted such as raising of green mussels in abandoned fish cages and shrimp – tilapia mixed model to reduce the wastes released from aquaculture. Research staff conducted activities face to face with fishermen, emphasising how important it is to protect invaluable marine ecosystems. That is for their livelihoods not only for the scientists. Three hundred copies of guides to practice aquaculture healthily were sent to door of the fishermen. Staff of research project also worked closely with the local authorities to learn what they needed and how can the scientists help in order to fill the gaps of management skills in next step of project.</p> |
|--|--|---|--|

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

Actually, there were no difficulties experienced when the project activities have been carried out.

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

- + Having initial database about the current status of the coastal/marine ecosystems in Thua Thien Hue province that links with the poverty alleviation. Three most key marine/ecosystems are coral reefs, seagrass beds and mangrove forests. All of them are critical influenced by the human activities at different levels - the seagrass beds (with more than 22,000ha) can be rated as highly damaged compared with other ecosystems.
- + Fishing activities and unsafe aquaculture models are the main human activities that strongly link with the loss of ecosystem functions and consequently cause loss in livelihoods. The poverty rate still remains at 62.3% (absolute poor rate). Thirty percent of the fishermen (Phu Loc commune) were forced to change the fishing practices to work in aquaculture sector or eventually to move all the family members to the southern provinces to find other jobs due to natural exhausted phenomenon recently (poor resilient rate). Unplanned aquaculture growing, which is mostly based on extensive models, leads to reduction of the wild marine populations and loss of habitat (transforming of mangrove forest to aquaculture ponds). Abnormal weather such as tropical storms occur more frequently and directly destroy the facilities and human lives as well. The cause roots also may come from destruction of upstream rain forest and reduction of “green corridors” (seagrass beds, coral reefs and mangrove rainforest) downstream.

- + Face to face communications have been established among scientists, fishermen and local authorities to figure out the problems, solve problems together and find the future direction of an environmentally healthy approaches for them. Several activities have been carried out, for example, sending technical staffs to guide the fishermen to practice the aquaculture healthy model, working closely with the local government staff to assist them enhancing the management skills (changing from ecosystem-based management not the experience-based management).

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

In total, 150 local fishermen at Phu Loc commune were trained the aquaculture techniques following the safe aquaculture healthy models composed by the experts appointed of project team. They will apply this technique in aquaculture of green mussels. At the initial steps, 10 families have set up the green mussel farming with the positive harvest results after 2 years.

5. Are there any plans to continue this work?

Yes, we plan to study in the broader scales with the impacts of climate change effects.

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

In accordance with the contribution of the Centre for Community Development and Marine Conservation in Hanoi, we did a review of the ecosystem services for the whole country and the results from this Rufford grant contributed for the central provinces' part. This work was also has been published at the International Conference on Marine Biology in the South China Sea, Kaoshiung, Taiwan, July 2010.

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

The project finished on time as noted in the proposal

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 | Budget Amount (£) | Actual amount | Difference | Comments |
|---|-------------------|---------------|------------|---|
| Stationery | 200 | 200 | | |
| Field trip allowance | 641 | 641 | | |
| Accommodation | 938 | 938 | | |
| Staff training | 890 | 890 | | |
| Printing, book binding, photo development | 823 | 823 | | This amount of money seems very insufficient when many of activities in the public awareness campaign |

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|--------------------------------------|---------------|---------------|--|------------------------|
| | | | | have been carried out. |
| Scientific contracts | 715 | 715 | | |
| Others | 187 | 187 | | |
| Transportation | 1500 | 1500 | | |
| Chemical for preservation of samples | 106 | 106 | | |
| TOTAL | £ 6000 | £ 6000 | | |

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

- + Disseminate the project outcomes in national journals, meetings, workshops related with the topics
- + Keep carrying out the in-depth studies at the broader scale that climate change effects should be the main concerns.
- + Involvement of some key local partners in the project activities as the chances for technical transferring to improve the management practices.

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

11. Any other comments?

The secretary of this programme Miss Jane Raymond has performed very well to facilitate the head project and kept all the activities on track and followed up with the Foundation regulations. However, we experienced loss of communication via the official mailbox. It may relate to the mailbox quota and many emails sent that reversed back as the error address. Should Rufford use the additional mailbox like the Gmail?