

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	Mohan Raj Kafle
Project title	Promoting Community Based Management of Invasive Water hyacinth (<i>Eichhornia crassipes</i>) in Pokhara Valley Lakes of Nepal
RSG reference	53_03_09
Reporting period	14 Months
Amount of grant	£5955
Your email address	mkafle@gmail.com
Date of this report	Sept 3rd 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
Experimentation on preparation of compost from water hyacinth			Fully achieved	
Experimentation on preparation of bio-pesticide from water hyacinth		Partially achieved		As there are so many insecticides and pesticide constituents present in the pesticides found in the market, few constituents are more or less similar to the compost constituents found from the lab test and the practical application in the field is still to be tested.
Experimentation on preparation of fish-feed from water hyacinth		Partially achieved		Fine grinding is not possible because of the unavailability of proper grinder and so the fine pellets could not be formed. We found that either the produce from the fermentation should be fully dried or a special type of grinder used to grind the fibrous and moist material.
Periodic record keeping		Partially achieved		In the case of compost, we could record the periodic data for its constituents and condition of composting but it was not practical to keep periodic records of bio-pesticides and fish-feed experiments because of the short fermentation period and enclosed experiment inside the plastic drum.
Final lab-test			Achieved	We found the lab test facility from the National Agriculture Research Institute and Regional Soil Test Laboratory and what they could provide. We could find the facility for the test of macronutrients and pH but not for the micro elements from these labs.
Publication, dissemination and Awareness			Achieved	We published the reading materials regarding the water hyacinth in local language and disseminated to the wide mass of people. Also school education, community awareness and stakeholder workshops were conducted.

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

Following unforeseen difficulties are faced during the project implementation:

- Due to the absence of local government in Nepal in the last 6-7 years, we faced difficulties in co-ordination for permission to collect water hyacinth from the lakes but we succeeded in accomplishing that task with the help of local elites and ex-representatives of local government.
- Disturbance to the individual researchers and Non-Governmental Organizations in field level activities from different political and non-political underground groups prevailing in Nepal in recent years, and their high demands (of financial support) from the researchers and organizations. Because of weak social security situation of Nepal due to political instability, we could not carry out field activities on time without satisfying those pressure groups; really we got the result very hardly.

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

- Pollution of the lakes will be reduced due to increased use of bio-pesticides, organic composts and regular removal of water hyacinth for the making these products by the farmers.
- Economy of the farmers will be improved with improved environment for boating and fishing in the lakes and promoted tourism after the removal of water hyacinth.
- Individual or groups of local farmers can adopt the developed methodologies for making these useful low cost products in the form of micro-enterprise that will have direct effect on socio-economic condition of the area.

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

Following is the involvement and benefit status of local communities form the project:

Communities involved	Benefits from the project
local farmers and boaters	Collection of water hyacinth and arrangement of equipment and materials for the experiment (in the form of wage labours): support to their household income.
Local community organisation	Support for providing the shade house for the experiment (in the form of rent): support for community fund increment.
Project Action Team/Committee	Arrangement of local events, preparing for the experiment and care and execution of experiment (in the form of cash and human resource support to the local CBO and women group): benefited in enhancement of technical and managerial skills, co-operative and team culture and short term employment.
Local school students and teachers	Education and awareness on lake conservation and potential use of water hyacinth for the benefit of local farmers and enhanced environment: benefited by enhancing their education and awareness level in the field of conservation.
Hoteliers, boaters and fishermen	Education, awareness and potential mechanism formation for regular lake cleaning: long term benefit to foster their profession which is directly dependent on the life of the lakes.
Local women group	Education, awareness, involvement in the orientation trainings and experiments: benefit in the form of developed skill to use water hyacinth, group culture in work, low cost of their agriculture, support to their household income.

5. Are there any plans to continue this work?

We have the plan to continue the work from the local CBO and Womens' Groups working in the local area. We also discussed and planned to form a co-operative organisation involving the local farmers, womens' group representatives, boaters, local hoteliers and local CBO representatives to start and continue the composting work in the form of micro-enterprise.

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

We planned to share the result of the work by publishing articles and reports in the national and international journals and newsletters. Also we present the result of the work in national and international forums if get opportunity for that.

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

We accomplished our project within 14 months period which is 2 months more than the anticipated/planned project schedule. It is because of the effect of some externalities like pressure from some pressure groups and time factor of the community people in project activities.

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
PERSONNEL EXPENSES	2240	2250	-10	Extended project period and increment in the wage rate of labourers
TRANSPORTATION AND TRAVEL EXPENSES	200	195	+5	Use of motorbike by the researcher most of the time, minimisation of high cost taxis and use of public buses
SUPPLIES AND EQUIPMENT	500	475	+25	Somehow the estimated quantity of materials is minimised in quantity, most of the materials found in local market
MEETINGS AND TRAININGS	1000	1010	-10	Some additional meetings and orientation programmes organised in project site and local schools
RENTAL	290	275	+15	Instead of constructing the shade house, taken in rent and the rental charge is discounted by the community
PHOTOCOPY, PRINTING and STATIONERY	200	225	-25	The leaflet and project concept paper is distributed to more than estimated number of people and stationery is distributed to more participants than estimated as

				the number of events organised were more than planned
PUBLICATION, EXTENSION AND DISPLAY	925	915	+10	Due to discount in the publication by the press
COMMUNICATION	200	205	-5	Provided communication to the Action Committee, CBO, Women Group, Contact farmers and Event Organizer
LAB TEST	400	415	-15	High laboratory fee/charge than expected
Total	£5955.00	£5965.00	-10	

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

The important next steps are to continue and achieve the long-lasting effort of this project is to officially register the co-operative organization and support them for the establishment of infrastructure and processing plant for the compost and potential products preparation.

Co-operative formation and registration, infrastructure development for the water hyacinth-based micro-enterprise establishment, support to the co-operative for the collection and processing of large mass of water hyacinth, media extension programs for marketing and sharing of the work are important next steps for the long lasting effect of this project.

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 used the RSGF logo in the banners and the publications we made during the project. Most of the local people and participants of the project area are used to the RSGF logo and can tell that this project and relevant activities are supported by RSGF.

11. Any other comments?

This project is only a piloting work for the potential utilisation of invasive water hyacinth with participation of local beneficiaries of lake resources. For the continuous and long-term effect of the project, somewhat large scale project with some physical support (for the purpose of set up of some permanent processing facilities and infrastructures for wise and effective use of water hyacinth) to the co-operative organisation of beneficiaries is felt important in this area. Though we found from the experiment that water hyacinth can be used as low cost agricultural inputs like compost, production in large scale, extension in farmers level, practical field test in agriculture crops to find out its effect is very important next steps which can make sense of this piloting work.

Name of the project: Promoting Community Based Management of Invasive Water hyacinth (*Eichhornia crassipes*) in Pokhara Valley Lakes of Nepal

Project Leader: Mohan Raj Kafle

Country: Nepal

Financial Support : The Rufford Small Grants Foundation

Images showing project site and activities



Project/Study Area (Rupa Lake and its catchment)



Fish Farming by a Farmers' group in Rupa Lake



Orientation Class in a local school by the fellow



Discussion with a farmer group in Sundaridada



Discussion about project in Piple women group



Discussion about project rationale with a CBO



On-site lake visit by the fellow with local youths



Collection of Water hyacinth for orientation



Water hyacinth removal event



Orientation to farmer group on project activities



Composting in heap and fermentation in drum



Bio-pesticide preparation event



Fermentation for fish feed preparation



Shade house with experiment set up



Action Team after the interaction, site visit and observation



Interaction with the action team on experiment update and future work plan



Water hyacinth collected for experiment



Fermented sample of fish-feed



Bio-pesticide preparation in drum



Semi-decomposed compost



Decomposed compost sample



Dry compost produced from water hyacinth



Action committee and local farmers' gathering on the experiment site



Discussion with CBO members and other stakeholders in Lekhnath



Result Report Presentation/Dissemination Workshop organized at IOF, Pokhara



Glimpse of laboratory and lab test of the sample products



Glimpse of laboratory and lab test of the sample products