# CEPF FINAL PROJECT COMPLETION REPORT

## I. BASIC DATA

**Organization Legal Name:** *Ethnobotanical Society of Nepal (ESON)*

**Project Title (as stated in the grant agreement):** *Plant Biodiversity Inventory, Identification of Hotspots, and Conservation Strategies for Threatened Species and Habitats in Kanchenjunga-Singhalila Ridge, Eastern Nepal*

**Implementation Partners for this Project:**
*Shree High Altitude Herb Growers Groups (SHAHGG), Ilam District, Eastern Nepal*
*Shree Deep Jyoti Youth Club (DJYC), Panchthar District, Eastern Nepal*

**Project Dates (as stated in the grant agreement):**
*April 1, 2007 – March 31, 2008*

**Date of Report (month/year):**
*June 29, 2008*

## II. OPENING REMARKS

**Provide any opening remarks that may assist in the review of this report.**
*Community Forest User Groups (CFUGs) of Ilam and Panchthar districts are co-implementing partners of the project.*
*Final level identification of plant species/specimens was done in Royal Botanic Garden Edinburgh (RBGE), UK with the support from the experts.*

## III. ACHIEVEMENT OF PROJECT PURPOSE

**Project Purpose**: *Increased understanding and participation of civil society and policy makers in the conservation of plant resources and their associated habitats of Kanchenjunga Singhalila Complex.*
**Planned vs. Actual Performance**

| Indicator | Actual at Completion |
|---|---|
| **Purpose-level:** | |

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| *1. Population of rare, endangered, threatened and endemic species maintained.* | *1. Population of Rare, Endangered, Threatened, Endemic (RETE) plant species could not completely maintained but the initiatives (assessment of soil, association, surrounding habitats) to maintain their species were taken and conservation status of the species were assessed and updated and the species to be maintained were short listed based on their conservation and population status.*<br><br>*Frequency, density and basal area of the tree species of the area were calculated. Lithocarpus pachyphylla, Magnolia campbelli, Symplocos lucida, Eurya accuminata trees were dominant species of the area and the priority tree species Taxus wallichiana and Michelia champaca were sparsely distributed.*<br><br>*Altogether 26 plant species were identified for immediate conservation based on their existing data, present ecological data and local communities' priorities. Taxus wallichiana, Nardostachys grandiflora, Neopicrorhiza scrophulariflora, Swertia chirayita, Aconitum spicatum and Michelia champaca species were identified as most important species for conservation.* |
| *2. Major threats minimized and habitats restored.* | *2. Ten major threats were identified and 13 strategies with 51 sub-strategies (activities) were developed to overtop the threats and restore the habitats.*<br><br>*Illegal logging, overgrazing and human wildlife conflicts were causing irreversible damage to the plant diversity.*<br><br>*Awareness level and capacity of the local communities were upgraded through capacity building programs to minimize the threats.* |
| *3. Community Forests User Groups Operation Plan improved and plant biodiversity policy reviewed.* | *3. Two community forest user groups (Kanya Devi Community Forest, Sidin Panchthar and Thumke Pakha Community Forest, Jogmai, Ilam) operational plans were reviewed and revised, and plant biodiversity conservation measures, particularly of threatened and endemic plants, were incorporated in plans. A total of 14 plant biodiversity policy documents (government-7, WWF-2, IUCN-1, ICIMOD-1, CITES -1, CAMP-1, ESON -1) were reviewed.* |

**Describe the success of the project in terms of achieving its intended impact objective and performance indicators.**

*The outcome of the project is satisfactory due to the substantial achievement to achieve the goal of identifying biodiversity hotspots and developing community-based conservation strategies to conserve the threatened species and habitats in Kanchenjungha-Singhalila ridge.*

**Were there any unexpected impacts (positive or negative)?**

*The area under study was one of the least explored areas of Nepal, and revealed that some of the areas such as Falaincha VDC of Panchthar and Jamuna VDC of Ilam are significantly important due to several threatened species and habitats. Sharing of this information among the local community has a positive impact in the conservation of biodiversity hotspots.*

## IV. PROJECT OUTPUTS

**Project Outputs**:

**Planned vs. Actual Performance**

| Indicator | Actual at Completion |
|---|---|
| **Output 1: Endemic, rare and threatened plant species and associated habitats identified.** | |
| ***1.1*** *List of endemic, rare and threatened species and their habitats* | *1.1. A total of 786 plant species from 904 specimens were identified and among them 598 plant species under 302 genera and 99 families were confirmed. Two endemic species, 22 threatened and 13 new record species were reported..* |
| ***1.2*** *Ecological data of important plants and their habitats* | *1.2. Lithocarpus pachyhylla, Magnolia campbelli, Symplocos lucida, Rhododendron campanulatum, Eurya accuminata, etc. were luxuriantly dominating in the area with possessing highest ecological importance value. L. pachyphylla, M. campbelli, S. lucida, E. accuminata, etc. were dominant tree species of the area and the priority tree species T. wallichiana and Michelia champaca were sparsely distributed. Threats were prominent in the biodiversity rich areas such as Chhintapu, Timbung pokhari, Meghu, Mejartham, and Dabale-Deurali where the grazing, illegal collection and firing verged the species and habitats into more threatened. Threatened species such as Rheum nobile, Saussurea* spp., *T. wallichiana, M. champaca, Neopicrorhiza scrophulariflora, Nardostachys grandiflora, etc. were common in these sites.* |

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| | *Soil data and associated species composition of important species and habitats analysed. Result showed that the sites were slightly acidic and sandy loam.* |
| ***1.3** Participatory and GIS Maps of critically threatened plants and the habitats.* | *1.3. Nine participatory resource maps were prepared. The distributions of important plant species were asked to local communities and urged them to locate in participatory resource maps. The participatory maps were substantial to definite the expedition route and punctuate the species distribution. A total of 23 GIS maps were prepared according to species, habitats, and conservation strategies. The maps were interpreted at multiple scales; land use, elevation and political/geographical boundaries. The sites of new record, threatened, endemic and prioritized species and habitats were enumerated in GIS maps.* |
| **Output 2: Participatory conservation strategies of key plant species and habitats developed.** | |
| ***2.1** List of key plant species and habitats.* | *2.1. List of 22 key plant species and 12 key habitats were identified from village level consultations and workshops. The list was further engraved and total 26 plant species and 10 habitats were finalized from national workshop and expert consultation. Among them, key 6 species (Aconitum spicatum, Michelia and Magnolia spp., Nardostachys grandiflora, Neopicrorhiza scrophulariflora, Swertia chirayita, and Taxus wallichiana) and 6 sites (Hangetham, Kalapokhari and Chintapu of Ilam district and Timbu pokhari, Lam pokhari - Suke pokhari - Ose and Mejartham - Chiwabhanjyang of Panchthar district) were accentuated for immediate conservation.* |
| ***2.2** Local community level suggestions and feedbacks and plant expert comments for conservation strategy.* | *2.2 Village and district level stakeholders contributed in prioritizing plant species and habitats, identifying major threats and developing respective conservation strategies. Refinement of the village and district level data was done at national plant expert consultation workshop and final prioritized plant species and habitat, and conservation strategies were formulated with analyzing field level ecological data, GIS data and local community suggestions.* |
| ***2.3** Conservation strategy of key plant species and habitats.* | *2.3. A total of 13 strategies with 51 sub-strategies were proposed as general conservation strategies. The strategies were developed at scale of time, district, and species. Species specific conservation strategies were developed for 6 key species: Aconitum spicatum, Michelia champaca, Nardostachys grandiflora, Neopicrorhiza scrophulariflora, Swertia chirayita, and* |

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| | *Taxus wallichiana. Species specific conservation strategies showed that T. wallichiana found to have the highest priority score and it was highly prioritized to conserve through almost all strategies (41 out of 51 sub-strategies). S. chirayita revealed the second most important species for conservation, possessing 40 sub-strategies, and it was followed by A. spicatum with 37 sub-strategies.* |
| **Output 3: Advocacy and community based plant biodiversity conservation program designed and delivered for civil societies and policy makers to implement improved management practices.** | |
| ***3.1** Plant biodiversity management training.* | *3.1. Two plant biodiversity management trainings were conducted in each district. More than 40 participants representing from farmers, forest users, herders, collectors, forest rangers, representing different organizations had participated in each trainings. The trainings helped to raise the capacity and awareness level of the participants and local people and it helped on management and restoration of plant diversity and richness and sustainable management of species. The events were focused on sustainable plant conservation and initiatives of ESON and the CEPF species, site and corridor outcomes.* |
| ***3.2** Improved Community Forest User Groups operation plans* | *3.2. Two community forest user groups (Kanya Devi Community Forest, Sidin Panchthar and Thumke Pakha Community Forest, Jogmai, Ilam) operational plans were reviewed and revised and plant biodiversity conservation measures particularly of threatened and endemic plants and habitats were incorporated in operational plans. GIS mapping of prioritized species and sites of the community forests was done, and other biodiversity component data (bird, soil, etc) were incorporated in updated CFUG operational plans.* |
| ***3.3** Participatory biodiversity conservation monitoring mechanism* | *3.3. A total of 18 permanent plots were laid for monitoring. The monitoring was done by community forest users and social mobilizers of the local collaborators to monitor the threats/disturbance regimes of the site. Monitoring mechanism was also coordinated with existing village level biodiversity monitoring committees. The committees and project implementations were guided and instructed by district level biodiversity advisory board and facilitated by ESON and other CEPF grantees.* |
| ***3.4** Project leverage initiatives* | *3.4. As guided by the conservation strategies of the project, follow up species specific projects were* |

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| | *proposed. Similar kind of project was also proposed in western Terai, Nepal. Similar project is being run in Langtang National Park, Central Nepal with the support from Plantlife International. Local collaborating partners were guided and equipped for post project management activities.*<br><br>*Now the collaborators are more knowledgeable on sustainable management of local plant resources and their knowledge. One of the collaborators of ESON for CEPF project, Deep Jyoti Youth Club (DJYC), Panchthar has been supported and promoted to develop a follow up project with targeting to implement the recommendations of ESON. DJYC has been prepared project/proposal and aligned for proposing to CEPF for either small grant or in core grant of CEPF, as a result. SHAHGG, Ilam has also proposed a follow up project for GEF/UNDP with aiming to address the recommendations of ESON.* |
| ***3.5** Project interim and final report, databases, brochures, web pages, articles.* | *3.5. Project quarter, interim and final reports were submitted. Brochures and newsletters were published. The data and findings were publicized in open access webpages of ESON (www.eson.org.np). An article has been published in the Nepal Journal of Plant Sciences Volume 2: 62-68 (2008).* |

**Describe the success of the project in terms of delivering the intended outputs.**

*While preparing the species and site based conservation strategies in villages, local communities had actively participated and identified key species and habitats. The conservation strategies and the species proposed by local community were substantial to finalize the conservation strategies. Almost all of the prioritized species from community level were short listed in final level conservation strategies.*

*A total of 13 species were identified as new record to Flora of Nepal. Of the new recorded species, one species is new to World and its final level verification process is going on. Greater number of new records species from Kanchenjungha-Singhalila Ridge attracted and encouraged local people and researchers for more research and development works in the area.*

**Were any outputs unrealized? If so, how has this affected the overall impact of the project?**

*The part of policy advocacy to the government has been less attained in this project. The project was aimed at advocating policy concerns to the government, but the information from the site/area level data were trivial in advocacy. However, the data are bench line for further project in the area.*

## V. SAFEGUARD POLICY ASSESSMENTS

**Provide a summary of the implementation of any required action toward the environmental and social safeguard policies within the project.**

*Six key species and habitats were identified through field visits, village, district and national level meetings and expert consultations for more conservation in Kanchenjungha-Singhalila Ridge. The species were most important in terms of socio-economy, culture and indigenous knowledge, ecology and sustainable biodiversity. More research and action researches are substantial for safeguarding the environmental and social attributes. Moreover, integrated species conservation assessment project helps in reviewing and updating the conservation status of the species and urge government to review their outdated policies and update in regular manner. There were government policies for inventorying the habitat but the policies were reticent in updating the conservation status of species in 5 year interval.*

## VI. LESSONS LEARNED FROM THE PROJECT

**Describe any lessons learned during the various phases of the project. Consider lessons both for future projects, as well as for CEPF's future performance.**

*The traditional forest and land use system viz. KIPAT is a great challenge for conservation initiatives in project area and it needs to be studied and addressed properly. Conservation initiatives and measures were less effective due to trans-boundary conflict. To resolve/mitigate such conflicts, national committees and regional or international commissions were imperative.*

**Project Design Process: (aspects of the project design that contributed to its success/failure)**

*Local partners were involved and international organizations have collaborated for the project accomplishment. Involvement of local communities in scientific expeditions and herbarium management was encouraging.*

**Project Execution: (aspects of the project execution that contributed to its success/failure)**

*Aspects contributed to success*
*1. Involvement and active participation of local collaborating partners and communities*
*2. Networking with national and international organizations*
*3. Organization's capacity and its past experience in the area*

*Aspects contributed to inadequate success/failure*
*1. Limited budget and time made project less effective because the maintenance and restoration of species and habitats demand long time project execution.*
*2. ESON organization itself and the current project were research oriented. The organization has less experience on implementation projects therefore there are some remarks over the project implementation.*

## VII. ADDITIONAL FUNDING

**Provide details of any additional donors who supported this project and any funding secured for the project as a result of the CEPF grant or success of the project.**

| Donor | Type of Funding* | Amount | Notes |
|---|---|---|---|
| *RBGE, UK* | *A* | *US $ 3000.00* | *Field supplies, taxonomic literatures, specimen identification* |
| *ESON* | *A* | *US $ 1000.00* | *Office supplies, rent, storage and maintenance amount* |

***Additional funding should be reported using the following categories:**

**A** Project co-financing (Other donors contribute to the direct costs of this CEPF project)
**B** Complementary funding (Other donors contribute to partner organizations that are working on a project linked with this CEPF project)
**C** Grantee and Partner leveraging (Other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF project.)
**D** Regional/Portfolio leveraging (Other donors make large investments in a region because of CEPF investment or successes related to this project.)

**Provide details of whether this project will continue in the future and if so, how any additional funding already secured or fundraising plans will help ensure its sustainability.**

*As a follow up of the project, it is extremely important to carry out second phase of the project with emphasis on the community-based conservation of a couple of highly threatened species and one biodiversity hotspot area in the Kanchenjungha-Singhalila ridge. There is enough ground to apply for the CEPF core grant, as a follow-up project, for the sustainability of the conservation initiatives in the Eastern Himalaya. We will also try our best to submit proposals to other funding agencies.*

*One of the collaborators of ESON for CEPF project, Deep Jyoti Youth Club (DJYC), Panchthar has been supported and promoted in follow up project for targeting to accomplish the recommendations of ESON. DJYC has been prepared project/proposal and aligned for proposing to CEPF for either small grant or in core grant of CEPF, as a result.*

## VIII. ADDITIONAL COMMENTS AND RECOMMENDATIONS

*Indigenous knowledge of resource management was long rooted in the site. Some sites and species were traditionally managed for subsistence needs. The needs of the local communities must be addressed thereby respecting traditional rights over the resources and resource use system. To guarantee their success, long term impact-oriented integrated programs should be lunched in comprehensive and coordinated fashion. Integrated project aiming at enhancing biodiversity research and uplifting local livelihood would be instrumental in the project site.*

## VIII. INFORMATION SHARING

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned and results. One way we do this is by making programmatic project documents available on our Web site (www.eson.org.np) and www.cepf.net, and by marketing these in our newsletter and other communications.

These documents are accessed frequently by other CEPF grantees, potential partners, and the wider conservation community.

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