



## Darwin Initiative Main: Final Report

To be completed with reference to the “Project Reporting Information Note”:  
(<https://www.darwininitiative.org.uk/resources-for-projects/information-notes-learning-notes-briefing-papers-and-reviews/>).

It is expected that this report will be a **maximum of 20 pages** in length, excluding annexes.

**Submission Deadline: no later than 3 months after agreed end date.**

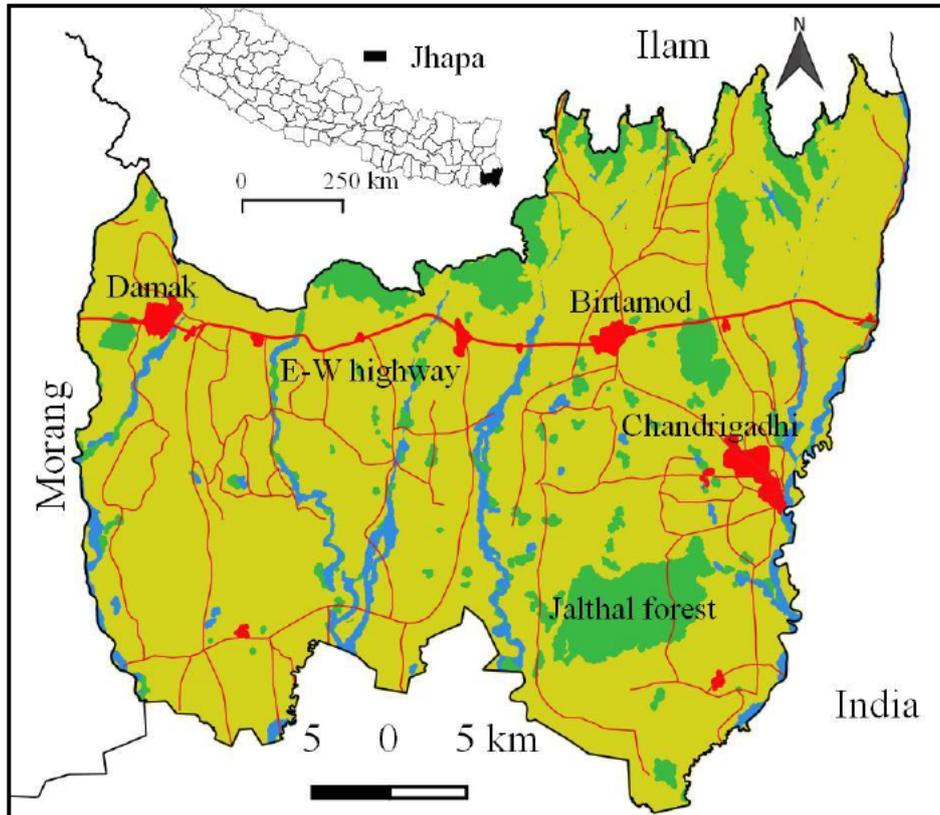
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### Darwin Initiative Project Information

Project reference	26-022
Project title	Uprating community forest management in Nepal: Enhancing biodiversity and livelihoods
Country(ies)	Nepal
Lead Partner	ForestAction Nepal
Project partner(s)	Royal Botanic Garden Edinburgh (RBGE) Kathmandu Forestry College (KAFCOL) Federation of Community Forestry Users (FECOFUN) Jhapa Division Forest Office (DFO) Jhapa
Darwin Initiative grant value	<b>298,439 GBP</b>
Start/end dates of project	01 June 2019 / 31 May 2022
Project Leader name	Naya Sharma Paudel, PhD
Project website/blog/social media	twitter: Jalthal Biodiversity @BiodiversityNep facebook: <a href="https://www.facebook.com/JalthalBiodiversity">https://www.facebook.com/JalthalBiodiversity</a> Flickr: <a href="https://www.flickr.com/photos/184289092@N07/">https://www.flickr.com/photos/184289092@N07/</a>
Report author(s) and date	Lila Nath Sharma, Naya Sharma Paudel, Bhaskar Adhikari, Muna Bhattarai and Ambika Prasad Gautam

## 1 Project Summary

**Location:** This project was implemented in Nepal. Project's field activities were concentrated in Jalthal forest in the eastern lowland of the country (Map 1). Jalthal forest is a 6100 hectare remnant forest surrounded by human settlement and agriculture field. The forest is known for its diverse and unique flora. It is also a habitat for the critically endangered Chinese pangolin and Elongated tortoise, and endangered Asiatic elephant. For the last one decade, the forest is being managed by 22 community forest user groups (CFUGs) which have over 80,000 forest users.



**Figure 1: Map of projects field intervention site (Jalthal forest), in the inset Map of Nepal with the project district.**

**Problem:** Community forestry is a flagship program of forest management in Nepal. However, despite its success in halting deforestation and forest degradation and increasing forest cover, the program has been criticised for its weak role in biodiversity conservation. Community forests have high potential for conserving Nepal’s forest biodiversity but this potentiality is not well acknowledged and realised, yet. In addition, forest management is narrowly conceived and focussed on a few high-value timber species thereby overall biodiversity has been overlooked. As a result, a large repository of biodiversity outside protected areas has been overlooked.

**Biodiversity challenge:** Forest biodiversity has been threatened by land use change associated with population growth and development. Forest has been degraded due to high pressure of extractive use-tree felling,/lopping fodder collection and firewood collection. The degraded forest is further exacerbated by the encroachment of Invasive Alien Plant Species (IAPS), which are ever increasing burden in forest management. Conventional forest management has prioritised timber species leading to homogenised forest composition thereby undermining multipurpose forest and wider spectrum of ecosystem services. Forest management has failed to identify its rich but threatened biodiversity.

**Poverty Challenges:** At the global scale, there is a spatial congruence of high poverty and high biodiversity. Increasing population pressure coupled with rural poverty has exerted pressure on forest biodiversity. Forest periphery is settled by indigenous and poor people who depend heavily on the forest for sustenance. Women in particular have limited access to alternative economic resources. Existing management in the forest and development interventions outside it has failed to embrace the traditional forest product needs of subsistence farmers.

**Target beneficiaries:** Local people, specially forest-dependent poor and indigenous people who are organised as community forest users groups (CFUGs) and are involved in managing and using forests.

**Project design:** The project has been designed to deliver three major objectives: i) detail biodiversity profiling of Jalthal forests; ii) demonstrate the workable model strategies for biodiversity conservation, forest restoration and poverty reduction through field-level activities in Jalthal forest; and iii) communicating the lessons to stakeholders, policy actors and citizen at large. Project brings insight from field action into the policy and planning processes of community forests of Nepal. Project has been designed to highlight the biodiversity significance of the forest for better appreciation and adequate integration of biodiversity conservation in planning, programs and policies at different levels. At the site level, the project has worked to address the specific threats to biodiversity. Project has taken a participatory approach and engaged with diverse stakeholders and carried out several activities to enhance the capacity

of CFUGs and other forest sector stakeholders. Project has also prioritised sharing the knowledge to sensitise and develop ownership of conservation among diverse stakeholders including policy actors.

## 2 Project Partnerships

ForestAction Nepal (FAN) is the lead organisation. Federation of Community Forests Users Nepal (FECOFUN), Kathmandu Forest College (KAFCOL) and Division Forest Office (DFO) Jhapa are collaborating institutions from Nepal and (Royal Botanic Garden Edinburgh) RBGE from the UK. Principal investigator Dr Naya Sharma Paudel and Project Manager Dr Lila Nath Sharma regularly communicate with partners through in-person meetings, phones, emails and zoom calls. Project activities are implemented jointly by collaborating institutions based on the nature of the task. In-person meetings are organised with FECOFUN chair and DFO in Jhapa, while meetings with the Principal of KAFCOL are organised in Kathmandu. Project activities are decided jointly. FECOFUN and DFO representatives participated in all field activities.

The project has also engaged with institutions, experts and media persons outside the project team and organisation. During the floral and faunal survey, a dozen of experts from universities, government and other research institutions were deployed (Doc 13).

Dr Lila Nath Sharma presented about the project and shared results in three national-level workshops and one international conference (Doc 03, 04).

The project organised a national level workshop in Kathmandu in collaboration with the Department of Plant Resources (DPR) and Tribhuvan University (Doc-42, 43). The project has closely worked with local governments in the project sites (Doc 03, 01, 02).

Project partnership with RBGE and collaboration with a non-partner institution (Tribhuvan University) resulted in a comprehensive account of floral biodiversity with 20 new species reported for Nepal flora (Doc 13, 10).

FAN is collaborating with KAFCOL, RBGE and FECOFUN in another Darwin project. FA is planning to develop similar projects in future. Building on the success of this project FA is implementing IKI/GIZ funded project in central Nepal. RBGE and KAFCOL experts significantly contributed to all project reporting.

## 3 Project Achievements

The project mostly achieved its targets. The level of achievements was not similar across the four outputs. In output 1 and 2, we materialised more than we originally planned. In output 3 progress was satisfactory. In output 4, we made a slight deviation from the original plan to adapt the local needs and to secure the project goal.

### 3.1 Outputs

The project has set the following four outputs. Below we present results against each output. Figure in the parenthesis refers to the output indicator followed by supporting evidence.

**Output1:** *Forests are sustainably managed with greater diversity, enhanced structural complexity and improved productivity, and institutional capacity for biodiversity conservation enhanced*

Through participatory-biodiversity survey, engaging over 100 local people, the project has enriched existing knowledge about plants (for example, an earlier study reported only 200 plant species from the forest while we enumerated 600). The survey has reported 20 plant species as a new addition to the Flora of Nepal and led the biodiversity profile of the forest (1.1, Doc 12, 13, 05, 48). Both theoretical and practical trainings were organised to conceptualise biodiversity, identify threats and adopt conservation measures for CFUG leaders. A total of 150 participants benefited from these training activities (1.2, Doc14, 15). Community forest management plans did not have a concrete provision for biodiversity. However, 10 CFOPs have been revised with biodiversity provisions, and all 22 CFs now integrate biodiversity conservation into their annual plans (1.3, Doc 16). Over 10,000 banana and native fodder seedlings have been planted to improve habitat of elephant (1.4. Doc 17, 18, 02). Over 350 kg of seeds of fodder trees/shrubs have been distributed and over 100,000 native seedlings have been protected and promoted in the forests (1.5, Doc 17, 18). Rare and threatened species and key ecosystem has been identified and communicated with CFUGs about their protection. Four workshops and a series of meetings have been organised to prioritise species for conservation (1.6, 1.7 Doc 6-11, 20). A biodiversity register consisting of various important species has been prepared for publication (1.8, Doc 21). A comprehensive checklist of plants has been prepared to highlight the floral diversity of the forest (1.9, Doc 10). The Project has

rescued and nurtured over 100,000 seedlings in the forest, which has certainly increased sapling density (1.10, Doc 18, 22). A biodiversity profile has been prepared and published separately. These profiles signify the biodiversity value of Jalthal forest (1.11, Doc 13, 23). These activities formed the foundation for evidence-based management of the forest with improved conservation outcomes.

**Output 2.** *Mikania invasion including satellite populations substantially reduced and controlled, degraded forest areas and wetlands reclaimed and converted into productive systems through 'integrated site management'*

The project has made notable progress in invasive species management in Nepal. Spatial analysis of Mikania cover reported that over half of the total forest was invaded with Mikania, and environmental correlates have been analysed (2.1, Doc 26, 59). Through field experiments and a series of discussions, the project has suggested strategies for Mikania management in Jalthal forest (2.2, Doc 31, 12, 60). Building on materials from previous Darwin project, a book on the 27 most problematic species has been produced by the project team (2.3, Doc 28). Project has reported a newly introduced invasive species (*Mimosa diplotricha*) for Nepal and communication material including newspaper articles have been published (2.3, Doc 29, 30, 45, 48). Awareness and removal campaign against this new invasive was organised (Doc 04). There have been changes in invasive species management practices and we have organised activities targeted to invasive species engaging local people (Over 10,000 man days' work), invasive species have been removed from over 500 hectare of forest (2.4, 2.5, Doc 32, 04, 03). The target of output 2.5 appears to be very ambitious as the removal was much more expensive and labour-demanding than we thought. Compost-making has been identified as a cost-effective and practical model of Mikania biomass management in longer run. So far over 60 metric tons of compost has been prepared in four CFs (2.6, Doc 33). Two degraded wetlands (*Jhilka Pokhari* and *Latamari Jhil*) and other two waterholes for wildlife have been restored and improved (2.7, Doc 34). Stakeholder were sensitised on threats of invasive species and demonstrated management options for mitigation of this problem.

**Output 3.** *Biodiversity conservation and values are appreciated and integrated into community forestry policy and planning process; communication/awareness raising materials highlighting biodiversity conservation prepared and disseminated for diverse stakeholders*

Sixty-five (Community Forest Operational Plan) CFOPs representing Nepal's diverse community forests were reviewed to identify biodiversity conservation provisions and gaps in community forests. It revealed that most of the CFs have weak provisions for biodiversity (3.1, 38). A booklet in the Nepali language has been prepared to facilitate biodiversity integration in CFOPs- community forest operational plans (3.2, Doc 40). Eighteen officers directly engaged in forest management plan preparation were provided with training on biodiversity integration in community forest management plans (3.3, Doc 41). Biodiversity conservation issues have been discussed in two national-level workshops attended by policy-level bureaucrats (3.4, Doc 42, 43). Similarly, province-level discussion was also organised based on insights from project sites (3.4, Doc 43). A policy brief has been drafted, which discusses the challenges and opportunities of biodiversity conservation in managed and community forests (3.5, Doc 44). Project has prioritised communicating with and informing to local people and has made an impressive collection of materials in the Nepali language with over a half dozen of Newspaper articles (3.6, Doc 45, 47). Based on the project result, the project has prepared a documentary in the Nepali language (with English subtitle) which highlights the significance of forest biodiversity and discussed threats bearing upon it (3.7, Doc 46). Besides, diverse communication materials have raised the profile of projects among stakeholders. Project has achieved most of the targets within this output.

**Output 4:** *Forest based enterprises including fishery and ecotourism facilities established and operationalized for enhancement of local livelihoods*

In this output, we have mixed results. For example, we achieved satisfactory results in agroforestry, while we could not meet some others related to tourism development. The global pandemic Covid-19, had a major impact on our planned activities related to tourism, though there were other factors too.

Project has undertaken two feasibility assessments of income generating at the project site and these reports provided the guidance in interventions related to agroforestry (4.1, Doc 49, 50). Work plan for compost and fishery was prepared (4.2, Doc 50). Women members from poor and indigenous groups were identified and supported. However, our intervention could not produce the expected results from fisheries (4.3, Doc 36). As further intervention on fishery required additional homework, therefore we focused much on agroforestry (Doc 36). Project supported local women in three income-generating activities, goat keeping, agroforestry and weaving machine. Local people (of which 100 are women) generated nearly NPR 1.5 million from agroforestry, a significant income in local standard (4.4, Doc 36, 12). Over 10,000 seedlings of native species were planted in CF and private lands and over 350 kg of seeds of fodder distributed to

farmers (4.5, Doc 17, 03, 04). Regarding indicator 4.6 (income through fishery) we supported women in the fishery which did not go well. We realised a better understanding of the social-ecological dynamics of this area is essential for such interventions. We restored wetlands, which indirectly benefited people. Instead of fisheries, we prioritised agroforestry and goat keeping. Goat keeping was connected with fodder trees and forest restoration. Our tourism plan was affected by Covid-19, however, the documentary and publications that we have produced made a foundation for long-term tourism development in the area (4.7, Doc 46, 54, 57). We have identified a place with high tree diversity and established a biodiversity demonstration block and supported CFUGs to operate it (4.8, Doc 54).

### 3.2 Outcome

Outcome statement: Jalthal biodiversity and ecosystems are restored with significant livelihood benefits and biodiversity conservation is mainstreamed in National CF policies and plans

Project took a participatory approach and worked with a large number of local people and diverse stakeholders. Forest and wetland restoration and invasive species removal activities directly engaged over 5000 people of which roughly 40 % were female (0.1, Doc 03, 04, 12, 32 ). Project supported CFUGs in integrating biodiversity in forest management plans and annual plans. So far 10 CF management plans (CFOPs) have been revised (0.2, Doc 16). Project has demonstrated and initiated such integration which will be adopted by remaining CFUGs. One hundred and fifty local people, including 18 government officers, got both theoretical and practical training on biodiversity integration in community forest management plans (0.3, 03, 14, 15, 41). Project organised several biodiversity surveys with local people that has resulted in over a dozen of a popular news article, five journal articles and a profile of forest (0.4, Doc 5-11, 45, 48). Twenty species have been prioritised for conservation and a colour booklet featuring those species has been published in a Nepali language (Doc 0.4, Doc 20). Infographics and poster for awareness has been prepared and disseminated among stakeholders (Doc 70). Invasive species, particularly *Mikania*, has been removed in 22 CFs covering a total of 500 hectares forest (0.5, Doc 32). Over 100,000 seedlings of native species have been rescued from IAPS and nurtured (0.5, Doc 18, 22). We protected and promoted natural regeneration in the forest, with over 100,000 seedlings of 60 species being protected, this has positively affected regeneration of native tree species. These seedlings would not have grown in the absence of our interventions (0.6, Doc 18, 22). Fodder species, mainly Banana, Elephant apple and Bamboo, have been prioritised in the plantations, and turmeric and ginger have been identified as useful species for local income generation through agroforestry (0.7, Doc 17, 58). Over 200 local people were supported in agroforestry of which 100 are women from poor and indigenous groups (0.8, Doc 36). From goat keeping, agroforestry and traditional weaving machine women have generated over 2.5 millions NPR. Project, although could not create income from tourism during its life but has built a solid foundation for ecotourism through the production of documentaries, communication materials and demonstration blocks (0.10, Doc 46, 54, 57, 04). Through various means (meetings, workshops, interactions, capacity building trainings, field demonstrations, newspaper opinion, journal articles and campaigns), the Project has prepared a scientific foundation for policy improvement towards biodiversity mainstreaming in community forests and has prepared a booklet in Nepali to facilitate the process (0.11, Doc 41, 40, 42, 43, 44, 04, 13, 14, 15, 70).

The Project's progress across outputs contributes towards the broader goal of forest restoration and biodiversity conservation in community forests of Nepal. While the project achieved most of the planned outcome-level targets, some of the targets were not met as planned. Specially, we could not generate anticipated outcomes from fishery due to our inadequate planning (Doc 36). Additionally, the initiation of ecotourism was hindered by the impact of COVID-19, as well as the local government's failure to materialize their policy programs in tourism. However, it is important to note that we included tourism as part of our work with the local governments, and they have prioritized tourism in their new development policies.

### 3.3 Monitoring of assumptions

Risks and assumptions were monitored regularly during the project period. Except covid-19 related uncertainties, other assumptions include the following.

**Assumption 1:** CFUGs and stakeholders acknowledge *Mikania* invasion as a major problem.  
Comments: Yes. CFUGs and stakeholders have understood *Mikania* as a serious problem (Doc- 16, 03, 04).

**Assumption 2:** There will be broader political support in Jalthal forest management and restoration programmes. **Comment:** Yes, there is consensus among stakeholders about the importance of Jalthal forest and the need for its restoration (Doc-03).

**Assumption 3:** Local governments also develop plans for tourism development and livelihood support in Jalthal area. **Comment:** Local government have policies and programmes but these are yet to make pragmatic for ground-level implementation. Local governments have talked about tourism development but we did not see these into action. Instead, the local governments have focussed more on fulfilling the expectation of people, prioritizing infrastructure development like roads, bridges etc.

**Assumption 4:** *Mikania* propagation and spread can be controlled through site management and new entry will be early detected and controlled. **Comment:** This holds true but intensive site management seems very costly with voluminous labour requirements (Doc 12, 58).

**Assumption 5:** Policy/decision makers in the Ministry of Forest in the federal and provincial government cooperate. **Comment:** Federal forest policy has been passed and it is supportive. We received expected support from the provincial government. A team led by the provincial forest secretary has also visited the project site (Doc 03, 42, 43).

**Assumption 6:** Human wildlife (particularly Elephant) conflict minimised: **Comment:** Human elephant conflict was a little unpredictable. At the beginning of the project, it was a little lowered but during 2022 it has increased. Solar fencing built around the forest by Nepal Government in late 2019 worked to some extent but it could not prevent the conflict (Doc-56 ). As a short-term measure of minimising the conflict, we have planted fodder species in the forest (Doc 17). Complete prevention of human-elephant conflict requires coordinated intervention by the federal, provincial and local governments. Also there needs a bigger plans with coexistence in the core of such programs.

**Assumption 7:** CFUGs participate in bush cleaning for dual purpose 1) bush cleaning as part of their regular job and 2) Incentives for bush cleaning to CFUGs. **Comment:** Yes. This holds true. There is good cooperation from local people and CFUGs where CFUGs themselves have led the campaigns (Doc 32).

### 3.4 Impact: achievement of positive impact on biodiversity and poverty reduction

Project's anticipated impacts include long-term restoration of Jalthal forest, conservation of Jalthal biodiversity, integration of biodiversity in community forestry related policies and plans, and meaningful management of invasive species particularly, *Mikania micrantha*. Through almost four year long project implementation, we have conducted activities and demonstrated some results that are, indeed, form a foundation for higher-level achievement. We present project's long term impacts in the following areas.

- *Biodiversity conservation in managed forest:* For the first time in Nepal, for any forest patch, the project has prepared a comprehensive profile of Jalthal forest biodiversity that highlights biodiversity significance of the forest outside formal conserved (Doc 12, 13, Sharma et al. 2021 in Doc 48). The project has also informed local people and other stakeholders about the biodiversity erosion in the forest patch and has urged diverse stakeholders to take urgent actions for biodiversity conservation (Doc 64, 65). This has sensitised and attracted attention from diverse stakeholders towards better appreciation and conservation of Jalthal forest biodiversity in specific and biodiversity in management forest in general. (Doc 24, 45).
- *Towards ecologically informed restoration:* Plantation including exotic species was the most common approach to degraded forest restoration in Jalthal. Our analysis showed that there are plantation in over 50 places in Jalthal forest alone and exotic species dominate these plantations (Doc 62). In addition, we found that exotic species were still growing in the nursery and entering the forest (Doc 04- nursery survey section). We demonstrated that forest has tremendous natural regeneration potential and protecting it is ecologically sound and cost-effective method of growing trees in the forest (Doc 61, 18, 31). Through a series of meetings and workshops and acknowledging the natural potential of the forest, they have agreed not to plant the exotics like *Eucalyptus* spp. and *Tectona grandis* in future. The DFO made public announcement on this in a programme (Doc-63). These results and discussions have positive and long-term consequences in forest restoration and biodiversity conservation.
- *Transforming invasive species management for better ecological outcomes:* Project has conceptualised invasive species as a threat to forest biodiversity and demonstrated models of their management. In the past invasive species control activities used to be sporadic and uniformed by

ecological attributes. Project has initiated ecologically informed management of invasive species and piloted agroforestry for better social and ecological outcomes. Agroforestry approach is within a broader framework of integrated site management, these results can be scaled out for better management of invasive species. We believe this will have substantial and long-term contribution in biodiversity conservation.

- *Sustainable forest restoration and conservation*: Forest restoration is a long-term process and requires a sustained investment. The project has identified a sustainable model of forest restoration that benefits forest-dependent local people and generates income for them while restoring the forest. Using the approaches advanced by the project, local people have generated income through agroforestry and compost production. This income will incentivise local people involved in forest restoration. Restored forest again will generate ecosystem services for larger population.

## **4 Contribution to Darwin Initiative Programme Objectives**

### **4.1 Project support to the Conventions or Treaties (e.g. CBD, Nagoya Protocol, ITPGRFA, CITES, Ramsar, CMS, UNFCCC)**

Project activities support various international Multilateral Environmental Agreements (MEAs) particularly CBD, Ramsar Convention, Global Biodiversity Framework and national commitments in NBSAPs and NDCs.

Jalthal forest is rich in biodiversity but the overall facet of biodiversity has not been well explored and documented. The project has worked to identify, appreciate and document the biodiversity and associated ecosystem services through participatory approaches (Doc 13). The project has also identified threats to biodiversity (Doc-13, 37). These activities support Article 7 of CBD (Identification of component of biodiversity and their monitoring).

The project has supported integrating biodiversity conservation into community forestry policy and planning process. Project also supported in including ecosystem restoration and invasive species control forest management plans. This will help to enhance biodiversity in CFs and beyond protected areas (Doc-16). Project has prioritised species for conservation which will help to maintain the population of rare, threatened and locally overexploited species (Doc- 20). Conservation activities outside protected areas will indeed help in providing connectivity and stepping stone and alternative habitats. These activities contribute towards Article 8 (c, d, e) of CBD.

The project has conducted activities that lead towards the restoration of degraded forest. Activities like natural regeneration protection, weed control and site management, and wetland habitat improvement (Doc- 12, 49, 34, 04, dedicated article Bhattarai et al. 2022 in Doc 23). These activities will support the Article 8 (f) of CBD (Rehabilitate and restore...strategies.). This activity also supports Nepal's second NDC report's target of ecosystem restoration. Projects diverse activities on forest and wetland restoration contribute towards the global program of UN Decades (2021-30) of Ecosystem Restoration.

Invasive species are major biodiversity threats across scales. One of the serious threats to the Jalthal forest is invasive alien species particularly *Mikania micrantha*. Activities have been carried out to control invasive species through various ways like bush removal and site management (Doc-). These activities are aligned with Article 8(h) of CBD.

The project activities are aligned with multiple targets of CBD, mainly Aichi Biodiversity Targets (ABT). Awareness raising and capacity building for biodiversity and conservation through local actions in Jalthal serves to the Target 1 (Doc-04, 13, 14, 15); mainstreaming biodiversity conservation in Nepal's CF process is aligned with Target 2 (Doc- 16); sustainable management of forests is directly related to Target 7. Similarly, project will work to control and eradicate invasive species - *Mikania* and other species from the site (Target 9, Doc- 31, 32) and ecosystem restoration (Target 14, Doc-12, 32).

This project activity directly addresses the objectives of Ramsar Convention, as one of the major areas of our site-specific action will involve improved management and wise use of degraded wetlands within Jalthal forest (Doc-14). The wetlands in this area are habitats for breeding for migratory birds. Project

activities to restore wetlands directly serve to achieve strategic goals particularly Goal 3 targets 12 and 13 of the fourth Ramsar strategic plans of 2016-2024 (Doc- 34, 04).

Projects activities on forest restoration, conservation of biodiversity and local capacity enhancement contribute towards the recently drafted global biodiversity framework (GBF).

**4.2 Project support to poverty reduction**

Poverty-biodiversity relationship is complex. Local poor people regularly visit forest and harvest various products, mainly fodder, firewood and wild berries. When such harvest is higher due to population growth, it hampers forest biodiversity. Therefore, rural poverty is one of the proximate causes of biodiversity loss. The project has implemented activities that link biodiversity conservation, forest restoration and poverty reduction of forest-dependent poor households. Project along with CFUGs has identified beneficiaries from the poor and disadvantaged group for income generation. A total of 300 households are directly benefited from income generating activities. 100 women members started agroforestry in their CFs. Local people have already produced turmeric worth nearly 1.5 million Nepalese rupees. They consume turmeric as well as sell in local markets.

Project linked forest restoration, fodder plantation and income generation of women through goat keeping. Seventy women from poor households were identified and supported in goat farming. Some of them have already benefited from it (Doc 36). This is an important source of cash income for local people. Similarly, some CFUGs have started producing compost which is worth of NPR 600,000 (Doc 33). We also supported women practicing traditional clothes weaving. With the project support their efficiency has been increased and they have generated over NPR 1 million, which is double of what they used to have with their previous tools (Doc 36).

Project tried to be localised to bring project benefits to the local people at the project site. Project used local poor people in bush cleaning and forest survey, which is also a source of occasional cash income, in small amounts though. Project also used local catering for various events. Project staff and guests live in a village as paying guests. This has also contributed to bringing project money to the local people.

Forest restoration and biodiversity conservation will improve the availability of ecosystem services in long run. This will eventually contribute towards the well-being of local people living around the forest.

**4.3 Gender equality and social inclusion**

Gender related differences in terms of income, access to property and leadership are high in Nepal. Women, disadvantaged people and the poor rely more on natural resources than other groups of people. The project has considered these gaps during its implementation. While organising capacity building activities we have tried to increase women's participation, though, we aimed for at least 50% of women participation (Doc 03, 04), we managed to get only 40% . We have prioritised poor women while organising income-generating activities. Our fishery group, turmeric group and goat keeping group, all have exclusively women members (Doc 36). Women members from over 100 households have benefitted from these interventions. We have also promoted and supported traditional and existing women's group (Doc 36)

Women are given priority during appointing project staff. Both the field officer and local facilitators are female. Our forest ranger is from indigenous community. Similarly, a local facilitator is from a local indigenous group. They have been provided with an enabling working environment including safety and security measures, flexible working hours, capacity-building opportunities, and regular coaching and backstopping.

Please quantify the proportion of women on the Project Board <sup>2</sup> .	20
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women <sup>3</sup> .	

<sup>1</sup> Ramsar Convention Secretariat, 2016. The Fourth Ramsar Strategic Plan 2016–2024. Ramsar handbooks for the wise use of wetlands, 5th edition, vol. 2. Ramsar Convention Secretariat, Gland, Switzerland

<sup>2</sup> A Project Board has overall authority for the project, is accountable for its success or failure, and supports the senior project manager to successfully deliver the project.

<sup>3</sup> Partners that have formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.

#### **4.4 Transfer of knowledge**

Through piloting in the fields and studies, the project has generated knowledge that is worth transferring. Various means were used to reach out to wider audiences. Jalthal biodiversity assessment has reported 20 new plant species and identified key features of forest biodiversity (Doc 51). This knowledge has been shared through technical journal articles and newspaper articles (Doc 48, 45, 47). A documentary has been produced and shared, which highlights significance of biodiversity of Jalthal forest (Doc 46). Opinion articles based on the project result have also been published (Doc 64, 65). New knowledge has been shared through conference presentations and workshops with diverse stakeholders (Doc 03, 42, 43). Project has also shared the scientific knowledge generated during the project period to policy makers (Doc 03). Furthermore, the project's knowledge and insights were also shared with future leaders and conservationists by organising a notational student workshop (Doc 43).

#### **4.5 Capacity building**

The project has worked to enhance capacity of project staff and associated persons. Project Manager Dr. Lila Nath Sharma was invited for talks in various national and international seminars to share the project results. Project staff were invited by local governments in their planning meetings at the project sites. Dr. Sharma was also invited by the province secretary of Koshi province to share ideas and models of forest management (Doc 03).

Project has supported five MSc and two BSc. theses, and project staff have either supported them in the field or provided academic supervision. Project local facilitator (Debika Adhikari) joined a local government upon completion of the project and the project's field officer Mr Sanjaya Tamang joined the government service. We have encouraged project staff to write popular articles. Project officer Muna Bhattarai has led a blog in English language and one article about the project approach in Nepali language. Similarly, the project's local facilitators have also written few newspaper articles.

### **5 Monitoring and evaluation**

We changed the projects timeline but we did not change the project activities and output indicators. The final log frame therefore did not deviate from the originally proposed one.

Project monitoring and evaluation (M & E) against the set targets is the responsibility of the lead organisation i.e. ForestAction (FA) Nepal. ForestAction Nepal did not form a specific M & E team but the project implementing team itself conducted M & E. Project M & E remained a continuous process throughout the project life. Project M&E is an adaptive process, project indicators were closely monitored, and strategies had been prepared for the maximum possible achievement. Project Leader, CoPI from KAFCOL Dr Ambika P. Gautam and RBGE researcher Dr Bhaskar Adhikari regularly accessed the project progress. Project Manager used to report to PI and CoPI and he was responsible to implement the day-to-day activities. Field activities were undertaken by field technical staff.

To monitor the field activities ForestAction Nepal has formed a project management committee, which regularly monitors project activities. In every six-month project team needs to update the project progress at internal meetings of FA. We also need to update the progress to Social Welfare Council (SWC) and local governments. SWC staff visited the project site and monitored the progress (Doc 03). For the accounting and administrative purpose of ForestAction, it is mandatory to present a brief report on the achievement after each fieldwork. If the activities are done within CF, arrangements have been made for the CF to verify the progress against the activity. We conduct activities according to our project time line. Reflection and planning meetings were regularly organised at FA.

Project has prioritised producing communication materials in local language so that target beneficiaries understand it. Nearly two dozen materials have been published in Nepali language. In order to interact with the local community the project has posted its activities on facebook page which has 2.1 K followers' mostly local people. We believe, Nepali publications are also a kind of public auditing and accountability of the project. Similarly, the project has shared project progress with stakeholders (Doc 69).

Projects livelihood and field intervention was carried out by ForestAction Nepal. Kathmandu forestry college (KAFCOL), a partner which was not involved in the administration of livelihood and other field-level intervention, assessed the project's field interventions. The report objectively pointed out both strengths and weaknesses of the project (Doc 27).

## 6 Actions taken in response to Annual Report reviews

Reviewers have provided constructive feedback on the annual report. In general, we received a very positive review report. Review reports have been shared among partners and issues raised were discussed. Reviewers have suggested about the clarity in some data (for example tree data in Mikania cleared areas, abundance of bird data). As far as possible the data has been incorporated in the technical reports. Similarly, some comments were about consistency in the arguments (eg native seedlings and exotic (teak) plantation in year one). These issues have been addressed in subsequent year's annual and final report as well. The reviewer also has concerns about COVID and human elephant conflicts. These were also addressed in subsequent reports. Human elephant conflict report has been prepared and submitted along with this report (Doc 56).

In the Year 2 annual report, reviewer suggested following recent literature (eg, Sacco et al. 2021) in designing interventions. This suggestion was considered in the field activities of this project and while designing ForestAction Nepal's new projects. Reviewers have suggested using rich biological data in preparing field guide books, in the first stage, we are focusing on producing tree guidebooks in future.

One of the concerns of the Year 3 review was about the road construction through the forest. FA team has informed audiences (through newspaper opinion, Doc 68) about far-reaching ecological consequences of road construction. The government halted the construction. Reviewer's concern was if the halt is temporary. Based on our current knowledge, the road has been stopped and an effort to reinstate it in the near future is unlikely.

Some of the issues were related to the sustainability (Year 3 report) of the project activities. The project team has worked in the field and with stakeholders to make the interventions sustainable. Sustainability issues have been discussed in this report (section 9) as well.

## 7 Lessons learnt

Project has some notable achievements as well as some lessons. Following are key achievements and lessons:

1. Project has made a good profile based on its scientific merits. The project correctly identified biodiversity opportunities and challenges. Using the most recent scholarship on forest restoration and invasive species management the project crafted the field interventions. Project has demonstrated local people what works and what does not work in forest restoration and biodiversity conservation.
2. Project localised itself by establishing a site office, therefore our staff were available to assist locals as well as to collect scientific data through out year. The project's outputs would not have reached at this level if we had solely operated from the FA office at Kathmandu. While being too localised, however, we sometimes have to deal with very local social-political complexities.
3. Our government and other institutions generally have weak institutional memory. This was evident when there used to be change in leadership of CFUGs or government agencies. In some cases decision made by one leadership was not owned by successor leadership. We had to explain project repeatedly to a same office.
4. Income generation-related activities should be designed after careful analysis of social, cultural, ecological and economic analysis. Our interventions in fishery could not provide the expected results, it's partly due to both weak planning and biased team composition (the team was composed of ecologists and foresters) that lacked expertise in social science. It's hard to find both competencies in a single expert. Having staff for each expertise would increase additional administrative costs. Therefore, careful design of the project team and fully informed design for livelihood intervention is essential.
5. To ensure the sustainability of project interventions it is essential to work at different level, i. e. from field actions to policy circles. When successful interventions are supported by higher-level planning and policy processes the impact would be manifold and practice will be scaled up.

## 8 Risk Management

There were not any new risk during the last 12 months. But some previous risks (for example human elephant conflict) manifested in increased magnitude. Specific risks that appeared during the last 12 months and in the project life were handled as following:

- Human-elephant conflict was there before the project started. It increased during the second half of the year 2022. We made contingency plans, increased our vigilance and minimised work inside the forest.
- The project was affected by Covid-19 global pandemics. Local staff and site office eased our work to some extent. Remote working strategies and safety protocols were developed by ForestAction Nepal.

## 9 Sustainability and Legacy

This is a project led and implemented by ForestAction Nepal, which has over two decades of experience in working with local communities to policy makers to improve policy process through insights gained from action research projects. The project design involves the collective experience of ForestAction's and its partner organisations. This project has made a very good profile within the country and among researchers, local people and the conservation community. We are seriously concerned about the sustainability of project activities and want to leave some distinct legacies. We believe that project sustainability and legacy depend not only on the scientific merits of the project but also on local necessity, social acceptability and economic feasibility of the interventions.

We anticipate, project will have far reaching legacy based on its own work. Through the in-depth taxonomic studies, the project has made a substantial contribution to highlight the remnant forest patch and its unusually rich and threatened biodiversity. Contrary to the mainstream conservation projects- which usually focus on charismatic animals and protected areas, this project works at a site outside a formal protection but is rich in biodiversity which is seriously threatened. Through profiling of the biodiversity, probably the first of its kind for any forest patch in Nepal, project has placed itself for far-reaching legacies (Doc 12, 13). Project has sensitised diverse stakeholders about the biodiversity significance and threats bearing upon it, which will guide future conservation and forest management (Doc 13, 39, 45, 46).

Project has piloted a model of forest restoration through natural regeneration and agroforestry approach (Doc 58). This is simple yet effective and this model can be replicated which will be an important legacy of the project.

Project has also conceptualised invasive species as threats to biodiversity and introduced IAPS to diverse stakeholders. Project also introduced new approaches of management of IAPS. This is an important knowledge contribution of the project which will have far-reaching legacies.

Our working approach involving strong collaboration with key local stakeholders (i.e. CFUGs and DFO) will be the main basis for a continuation of the initiated activities. These institutions will be there and actively carrying forward the project's good initiations. We are enriching local stakeholders' capacity to monitor biodiversity and its threat which will also help extending projects impacts for a longer run. Some of the initiatives which we started need a long-term input, and CFUGs and DFO are convinced towards the long-term planning and actions for those initiatives. For example, *Mikania* control needs actions beyond project life. Management of *Mikania* and conservation of rare and threatened species will be embedded in forest management plans and annual plans (Doc 16 ), which will help sustain our interventions and results. We try to link forest management, *Mikania* control to income generation to sustain the forest and *Mikania* management. The manuals and policy brief, we have published through wider stakeholder engagement during the project period will also have long-lasting impacts of the project (Doc 40).

Our capacity building and awareness raising efforts are expected to have long-term impact on community forestry planning and management. Similarly, we have started to incorporate biodiversity issues and actions in operational plans which are the main basis for forest management in CFUGs, these documents are generally prepared for a period of 5 years, often up to 10 years.

## 10 Darwin Initiative identity

- This is a standalone project funded by Darwin initiative UK and the project has a clear aim and objectives. This information has been maintained in all our activities (Doc 66). Researchers especially botanists, ecologists and wildlife biologist, stakeholders related to forest and invasive species, CFUG leaders and local governments are aware of the project and its source of funding. Local journalists are also aware of the project and DI.
- We have used Darwin initiative logos in all the public documents and awareness raising materials (Doc 67).
- We have mentioned DI in all formal communications for example invitation letter to the participants, guests etc (Doc 67).
- We have informed authorities (federal government and local governments) about the funding source i. e. Darwin initiative. In a presentation in Kathmandu, we had the opportunity to explain DI's funding areas while responding to a government officer's questions about the nature of the funding of DI.
- In all the presentations made by project staffs DI logo has been used on the cover (front) page of the presentation. We have presented about various aspects of the project to federal, provincial and local governments. A total of 50 different presentations were made during the project period, due to the large size of the slides we did not bring them here as evidence.
- Published and submitted a journal article acknowledges the Darwin funding, and same will be done in future publications (Doc 67, 48).
- We have prepared detail account of the project in Nepali language to inform local people about the project. We have clearly mentioned that this project is funded by DI, UK. This document is circulated in project area and to relevant stakeholders in different parts of the country (Doc 66).
- Projects twitter account now has been linked with Darwin Initiatives twitter handle. We mention DI in each tweet. Locally our Facebook page is very popular.

## 11 Safeguarding

ForestAction Nepal has written a policy to administer project staff which has no tolerance to any form of discrimination based on gender, religion, ethnicity and race. Sexual harassment and any kind of sexual violence are not acceptable. We are committed that no person will be employed without paying. All people engaged in our work will be paid according to national laws and local practices. All local people attending our meetings and trainings will get their transportation cost compensated. We respect and comply with both the host and funding country's laws to implement the project.

We are committed to conduct work in a safe environment. We care about the safety and security of our staff and local people working with us. Work inside the forest is usually carried out in group so that the threat of wildlife is minimized. Other safety measures are ensured while working inside forest. Project has provided safety gears, like gloves (to removes bushes) and rain boots (to be safe from thorns and snakebites during monsoon)

As the project's major engagements are with natural environment, we, therefore are committed towards not harming the natural environment. We have a strategy of discouraging introduced species plantation in the forest. We adopted actions to promote natural regeneration during bush cleaning and Mikania removal. We didnot allow to introduce any invasive species in the forest and outside; this is particularly relevant while selecting fodder and NTFP species for plantation. We have assured that our experiments inside the forest will not have short term or long term negative impacts to forest wildlife and dependent rural population.

Has your Safeguarding Policy been updated in the past 12 months?	Yes
Have any concerns been investigated in the past 12 months	Yes
Does your project have a Safeguarding focal point?	Yes [ <i>Mr Rahul Karki</i> , <span style="background-color: black; color: black;">XXXXXXXXXX</span> ]
Has the focal point attended any formal training in the last 12 months?	No
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 0 % [and number] Planned: 100 % [3]
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses.	

## 12 Finance and administration

### 12.1 Project expenditure

Project spend (indicative) since last Annual Report	2022/23 Grant (£)	2022/23 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Others (see below)				
Audit cost				
<b>TOTAL</b>				

Staff employed (Name and position)	Cost (£)
<b>TOTAL</b>	

Capital items – description	Capital items – cost (£)
<b>TOTAL</b>	

Other items – description	Other items – cost (£)
<b>TOTAL</b>	

## 12.2 Additional funds or in-kind contributions secured

The additional fund is mainly in terms of kind contribution from RBGE experts. Dr Mark Watson, Dr. Bhaskar Adhikari and DR Colin Pendry contributed their time in the project.

Source of funding for project lifetime	Total (£)

Source of funding for additional work after project lifetime	Total (£)
<b>TOTAL</b>	

## 12.3 Value for Money

Project has worked to make the best use of the grant money. Project adopted a strategy of using efficient and cost effective programs. The following points supports that the project provided a good value of the money.

- Project prepared a small and efficient technical team to implement the project. Expertise matched for technical writing, the scientific rigour of intervention and art of implementing field activities in collaboration with local stakeholders. Senior positions provided part-time contribution that reduced costs in salary and administration.
- To make work efficient, the project localised itself in the project site in terms of staffing and office. That has reduced carbon footprint, enhanced work efficiency and reduced money that would otherwise go to hotels. Wherever possible we minimised workshops in larger hotels.
- Project has worked to minimise papers in its work, within the project communications are paperless. Communication materials published for the public are condensed.
- Project prioritised for local benefits. Project engaged local people and resources wherever possible.
- Project promoted pragmatic and environmentally sound interventions. For example, natural regeneration protection has reduced the big cost associated with the plantation. More seedlings were protected with the cost of the plantation. In addition, carbon footprint associated with plantations was also reduced. Similarly, project promoted local and native species in forest.
- Project has attempted to provide more money for field interventions, ForestAction adopts minimal subsistence support for staff travelling from Kathmandu to the field.

### 13 OPTIONAL: Outstanding achievements of your project (300-400 words maximum). This section may be used for publicity purposes.

I agree for the Biodiversity Challenge Funds Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here).

We have content to highlight in the supplementary material Doc 12. You may pick content from there as well. Here We present two activities as major achievement of the project.

#### Capitalising the natural potential of forest for effective forest restoration

Conventional approach to forest restoration and climate change mitigation often prioritise plantation. Government and other agencies in Nepal have been investing their efforts in plantation since long. Many of recent plantation schemes are not successful due mainly to the choice of wrong species. This is not only the case for restoration of denuded landscapes, but also in biodiversity rich natural forests, and Jalthal is testimony of such failed initiative. Jalthal forest is a 6100 hectare of natural remnant forest known for its rich biodiversity. The rich forest biodiversity has been threatened due to historical land use change and invasive alien plant species. In the forest, during the last one decade, several thousands of seedlings have been planted in over 50 locations, most of which is dominated by exotic species like Eucalyptus and Teak. Except few, most of the plantation is a failure.

Our quick scanning of the region shows that there is a tremendous natural regeneration potential of the forest. With that in mind, w adopted a strategy to capitalise the natural regeneration potential of the forest. The project has released and conserved over 100,000 seedlings of 60 native tree species that would otherwise be suppressed and decimated in the dense mat of invasive plant species i. e. Mikania micrantha. Protecting natural regeneration and discouraging exotic plantation in natural forests indeed benefits local people biodiversity and and substantially reduces cost for forest restoration.

#### Transforming invasive species management

Alien invasive plant species are increasingly turning out to be a burden for the natural ecosystem as well as the agriculture farmlands. Jalthal forest, a biodiversity rich 6100 hectare remnant forest, has been facing the brunt of invasion of several invasive plant species with Mikania micrantha being the most dominant. Conventional efforts to control the species has not been easy. A key reason for the ineffectiveness of conventional methods of invasive plant species management in Nepal is the failure to incorporate species' biological and ecological attributes into management actions. The project has developed and introduced a novel approach to invasive plant species management considering the ecology of the site, the phenological calendar and growing season of the invading species. The new approach focuses on minimising the trade-off between economic input and ecological outputs. The strategy is to allow maximum growth of native seedlings and suppress the growth of invasive species. Realising the growth dynamics of both native and invading species, and the cost of removal, the project has introduced 'natural regeneration rescue' and switched from the conventional bush cleaning practices. Piloting of invasive species removal in Jalthal forest demonstrated that our methodological approach has been a success in securing growth of native plants while suppressing the obnoxious weeds.

#### Image, Video or Graphic Information:

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Online accounts to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)
				Yes / No
				Yes / No
				Yes / No
				Yes / No
				Yes / No

## Annex 1 Project’s original (or most recently approved) logframe, including indicators, means of verification and assumptions.

Note: Insert your full logframe. If your logframe was changed since your Stage 2 application and was approved by a Change Request the newest approved version should be inserted here, otherwise insert the Stage 2 logframe.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<b>Impact: Biodiversity conservation mainstreamed in CF policies and practices, biodiversity in CFs enhanced, forest and wetlands are restored and local people benefit through forest-based enterprise including ecotourism and fisheries</b> (Max 30 words)			
<b>Outcome:</b> (Max 30 words) Jalthal biodiversity and ecosystems are restored with significant livelihood benefits and biodiversity conservation is mainstreamed in National CF policies and plans	0.1 22 CFUGs (representing more than 80,000 people) and 5000 local people (CFUG members), of which 50% are women, directly engaged in sustainable forest management activities by end of Year 4. 0.2 22 Community Forest Operational Plans (CFOPs) revised with a separate biodiversity section by the end of Year 3.  0.3 At least 100 foresters and CFUG leaders (40% women) trained to mainstream overall biodiversity conservation in CFOP by end of year 2.  0.4 Jalthal biodiversity assessed and detailed photographic profiles of 40 ( 20 floral and 20 faunal) species prioritised for conservation prepared and communicated through printed booklets (1000 copies) and three field education programs organised for awareness building and biodiversity identification by end of year 3.  0.5 Mikania cover in the Jalthal forest reduced by 80% (ca 1500 ha land cleared ) which have direct positive effect on regeneration and conservation of native flora and associated faunal species on those sites by end of the project. Satellite population controlled/destroyed in adjoining areas by the end of project.  0.6 Tree regeneration density (seedling density and sapling ) increased by 10 % by end of the of the	0.1 Meeting minutes of CFUGs, project briefing notes  0.2 CFOP and general assembly decisions  0.3 Training participant register, training materials, training reports  0.4. Assessment report and species specific profiles and printed booklet  0.5. Baseline and endline data, interview with local resident, photographs, satellite images, assessment reports monitoring evaluation report, comparison of baseline and end line data  0.6. Baseline and endline data comparison  0.7 Plantation report, CFUG record books  0.8. Plantation report, registry of participant of Mikania cleaning  0.9 Beneficiary interviews, CFUG records	0.1 CFUGs and stakeholders acknowledge Mikania invasion as a major problem  0.2 There will be broader political support in Jalthal forest management and restoration programs  0.3 Local governments also develop plans for tourism development and livelihood support in Jalthal area.  0.4 Mikania propagation and spread can be controlled through site management and new entry will be early detected and controlled.  0.5 Policy/decision makers in the Ministry of forest in federal and Provincial government cooperate  0.6 Human wildlife (particularly Elephant) conflict minimised.

	<p>project in response to land restoration and protection measures adopted.</p> <p>0.7 Five native NTFPs species including bamboo and rattans selected and used to establish forest based enterprise by end of year 3.</p> <p>0.8 Agroforestry including shade crops, NTFPs generates income for 100 poor households through women groups and contributes in Mikania control by end of year 4.</p> <p>0.9 50 poor households from indigenous and <i>Dalit</i> community benefit from fisheries (with native fish species) in two restored wetlands by end of year 3.</p> <p>0.10 Tourism facilities (information centre, nature guides, brochure) established and 30 local people including 15 women get trainings for tourism enterprise and 15 of them are supported for enterprise development by end of year 3.</p> <p>0.11 Provisions for biodiversity conservation integrated in National CF Guidelines by end of the project.</p>	<p>0.10 Biodiversity demonstration block in place, sign boards, information centre, published materials</p> <p>.11 Policy brief, changed forest operational plans, peer reviewed publication, biodiversity registers</p>	
<p><b>Output 1. Forests are sustainably managed with greater diversity, enhanced structural complexity and improved productivity, and institutional capacity for biodiversity conservation enhanced</b></p> <p>CFOP: Community Forest Operational Plans are approved documents guiding forest management, product</p>	<p>1.1 Participatory biodiversity assessment conducted, 22 members from CFUG and local, national and international experts/ technicians (Forester, ecologist/ botanist and wildlife biologist) engaged in the assessment and forest biodiversity profile prepared by the end of year 3.</p> <p>1.2 Two trainings on forest biodiversity management (including key attributes and habitat trees) organized in Year 1, 66 people trained from 22 CFUGSs</p> <p>1.3 22 CFOP revised and implemented by end of year 3 to incorporate overall biodiversity</p>	<p>1.1 An assessment report, a baseline data, M Sc student thesis, Checklist of flora and fauna, assessment participant registry.</p> <p>1.2 Training report, forest management plan, Participant interviews</p> <p>1.3. copies CFOP/general assembly decision notes</p> <p>1.4 Plantation reports, CFUG records</p>	<p>1.1 New Federal Forest Law recognises Community Forestry and respect its objectives</p> <p>1.2 Local government and CFUGs maintain a good collaboration and cooperation</p> <p>1.3 Human wildlife conflict minimised and managed</p>

<p>harvest silviculture and forest conservation.</p> <p>Year 1, 2, 3 refer to project years (for example year 1 means April 1 2019-March 30 2020).</p>	<p>conservation strategy, approaches and tools by CFs</p> <p>1.4 5,000 bamboo culms planted in forest and private lands, rattan pocket areas identified, and managed by the end of year 2</p> <p>1.5 At least 30,000 native fodder trees in CF and private lands planted by the end of project</p> <p>1.6 Rare, threatened, endangered and unique species and vulnerable ecosystems identified and protection measures are included in CFOP by end of year 3.</p> <p>1.7 Species profiles for 40 species (20 floral and 20 faunal including birds) species prioritised for conservation prepared and disseminated in project sites by end of Year 2.</p> <p>1.8 Jalthal Biodiversity register as envisioned by Nepal Biodiversity Strategy and Action Plan (NBSAP 2014-2020) prepared and maintained by mid of year 3.</p> <p>1.9 Checklist of all plant species in Jalthal forest prepared by end of year 2.</p> <p>1.10 Tree regeneration density, seedling and sapling density increased by 10% and 5% respectively by end of the project.</p> <p>1.11 Prepare and publish a comprehensive account of Biodiversity of Jalthal forest in Nepali (500 copies) and English (pdf file) language by end of year 4 [This document expected by local people and stakeholders]</p>	<p>1.5 Plantation report, users books, baseline survey</p> <p>1.6. copies CFOP</p> <p>1.7. Booklet of profiles (1000 copies)</p> <p>1.8. A draft of biodiversity register has been prepared and it will be finalised after publication modality.</p> <p>1.9. Checklist hard and soft copy published open access</p> <p>1.10 Forest survey data comparisons between baseline and end line data</p> <p>1.11 Profile printed copies and pdf for free distribution</p>	
<p><b>Output 2. Mikania invasion including satellite populations substantially</b></p>	<p>2.1 Spatial extent and abundance of Mikania including its environmental correlates analysed for its</p>	<p>2.1. Assessment report</p>	<p>2.1 CFUGs participate in bush cleaning for dual purpose 1) bush cleaning as</p>

<p><b>reduced and controlled, degraded forest areas and wetlands reclaimed and converted into productive systems through 'integrated site management'</b></p>	<p>control, management and monitoring by end of the 3<sup>rd</sup> quarter of year 1; Endline data by end of year 3.</p> <p>2.2 Participatory Mikania management and control plan for Jalthal prepared by third quarter of year 1.</p> <p>2.3 Bilingual (Nepali/local and English) colour booklet (1000 copies) on Invasive Alien Species (IAS) of Jalthal forest prepared and distributed By end of year 2.</p> <p>2.4 Mega campaign for <i>Mikania</i> control organized annually (ca 10,000 man-days workers involved altogether) to control Mikania in the forest; satellite populations around the forest are also destroyed by end of year 3.</p> <p>2.5 Mikania cover in the Jalthal forest reduced by 80% (ca 1500 ha land cleared) by the end of year 3.</p> <p>2.6 Existing and potential use of Mikania identified , promoted and communicated ( roughly 5 metric tons of Mikania biomass turned into compost and bio-gas) by end of the project</p> <p>2.7 Two of the largest wetlands in the Jalthal forest restored by removing Mikania and controlling siltation by end of year 3.</p>	<p>2.2. Control plan and CFUG record book, photographs</p> <p>2.3. Printed booklet and PDF documents</p> <p>2.4 Field report, CFUG records, Remote sensing analysis</p> <p>2.5 Users record book, field data and comparison of baseline and end line data</p> <p>2.6. Activity record, users survey, Amount of biomass converted into compost</p> <p>2.7 baseline and end line data collection</p>	<p>part of their regular job and 2) Incentives for bush cleaning to CFUGs</p> <p>2.2 Local government, civil society and CFUGs acknowledge the threats posed by Mikania</p>
<p><b>Output 3. Biodiversity conservation and values are appreciated and integrated into community forestry policy and planning process; communication/awareness raising materials highlighting biodiversity conservation prepared and disseminated for diverse stakeholders</b></p>	<p>3.1 Gaps and opportunities of biodiversity conservation in CF identified through detail review of selected 50 CFOPs in year 1.</p> <p>3.2 A manual for integrating biodiversity in CFOP developed for facilitators/ practioners by end of year 1.</p> <p>3.3 20 practitioners/facilitators (Government officers) are trained on biodiversity integration in CFOP in year 1.</p>	<p>3.1 Peer reviewed article published by the end of the project</p> <p>3.2 Printed and e-Copy of the manual</p> <p>3.3 Training report, Participant register</p> <p>3.4 Workshop report, participant register,</p> <p>3.5 printed copies and PDF of Policy brief</p>	<p>3.1 Federal, provincial and local government appreciate biodiversity conservation thereby supporting in CF policy and practices</p>

	<p>3.4 National level stakeholders (n=60) sensitised and informed on biodiversity integration in CF policy and practice by end of the project</p> <p>3.5 Challenges and opportunities for mainstreaming biodiversity conservation in CF highlighted through a policy brief (500 copies) in year 3.</p> <p>3.6 Wider audience informed on importance of biodiversity and its conservation measures through at least three newspaper articles on national dailies (One each in Year 1, 2 and 3).</p> <p>3.7 A documentary on good practice linking biodiversity conservation and livelihood produced and disseminated by end of year 2.</p>	<p>3.6 Newspaper cut /e copies</p> <p>3.7 Video and YouTube viewers data</p>	
<p><b>4. Forest based enterprises including fishery and ecotourism facilities established and operationalized for enhancement of local livelihoods</b></p>	<p>4.1 A scoping report on potential forest based enterprise prepared by the end of Year 1.</p> <p>4.2 A business schemes of selected enterprise (Tourism, fisheries, bamboos and rattans) prepared by the end of Year 1.</p> <p>4.3 Women (n=100) from marginalized and disadvantaged groups trained on enterprise establishment and operation by end of year 3.</p> <p>4.4 20% increase in household income from women-led enterprise (n=100 households) agroforestry, shade crops and NTFPs by the end of year 2.</p> <p>4.5 Seedlings of fodder, NTFPs ( five species) and bamboo planted (n=30,000) by end of year 3 (This activity is linked with forest management as well in output 1)</p> <p>4.6 20% increase in household income of indigenous people and <i>Dalit</i> (n=50) from fishery in restored wetlands by end of year 3.</p>	<p>4.1 copies of the assessment report</p> <p>4.2 Copies of business schemes for specific enterprises</p> <p>4.3 Participant register, training reports</p> <p>4.4 Plantation report, CFUG record books, interview with local people, Survey results</p> <p>4.5 Plantation reports, beneficiary survey, CFUG record book</p> <p>4.6 Beneficiary interviews, CFUG reports, Survey report</p> <p>4.7 Participant register, training manuals, documents of enterprise (for example registration, photos, news evidences)</p> <p>4.8 BDB block in place</p>	<p>Municipalities appreciate and prioritise tourism development as part of their overall development planning</p> <p>New Forest Law allows such tourism related activities.</p> <p>The human-elephant conflict managed/minimised by the ongoing projects</p>

	<p>4.7 At least 30 local youths (half are women) trained on ecotourism and at least 15 youths generate income through tourism related enterprise by end of year 3.</p> <p>4.8 Biodiversity Demonstration Block (BDB) identified, promoted and characterised (Name, ecology, conservation status) for eco-tourism by second quarter of year 3.</p>		
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**Activities** (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

**Output 1: Forests are sustainably managed with greater diversity, enhanced structural complexity and improved productivity, and institutional capacity for biodiversity conservation enhanced**

1.1 Organize planning workshops cum interaction program with local stakeholders at project site; Inception workshop attended by project partners, CGUG members (3 from each CGUG) and representatives from local governments and other stakeholders

1.2 Organize ‘Field education program’ for local people to demonstrate and identify key species, habitat and traditional Ecological knowledge associated with bio resources, Rarity and conservation status and ecological features of species and ecosystem also discussed and informed

1.3 Hold meetings with CFUGs to complement the field education programs to identify key biodiversity, rare and threatened species and traditional ways of management

1.4 Organize trainings to CFUG leaders to conceptualise them overall biodiversity, ecological uniqueness and significance of Jalthal, and bringing biodiversity to CF process

1.5 Support CFUGs in plantation of bamboo culms and other fast growing native fodder species, organise interaction with locals to identify needs and consult experts for feasibility

1.6 Work with CFUGs to revise and renew the forest operational plans considering key attributes of forest biodiversity (flora, fauna, birds, habitats, habitat trees, ecological complexity, ecological process, water points, wetlands, marshes, threatened and exploited taxa etc)

1.7 Conduct participatory biodiversity assessment of Jalthal forest bringing experts and local people together and maintain database, support KAFCOL master students in thesis on Jalthal biodiversity, management options and human nature interaction

1.8 Species are prioritised for conservation using local and expert knowledge coupled with biological data

1.9 Prepare and publish booklet containing profile of species prioritised for conservation

1.10 Prepare Jalthal biodiversity register and keep the register in relevant locations

1.11 Organize programs for forest fire, poaching control and conservation of threatened and rare species (in collaboration with DFO, FECOFUN and Local Governments)

**Output 2: Mikania invasion including satellite populations substantially reduced and controlled, degraded forest areas and wetlands reclaimed and converted into productive systems through ‘integrated site management’**

2.1 Carryout Mikania cover assessment using remote sensing and ground truthing tools (it serves as baseline data as well) and carryout end line data collection at the end

2.2 Organize workshop with local stakeholders to prepare strategies and plans for Mikania control (prepare plan for ‘integrated site management’)

2.3 Organise campaign and conduct activities for Mikania clearance in forests in wider stakeholders participation including local government representative, provide incentives to CFUGs for users contribution

2.4 Identify and promote technologies to use Mikania biomass (Support local farmers to make compost and bio-gas out of Mikania weeds)

2.5 Undertake programs to restore wetlands in collaboration with local governments, indigenous people and CFUGs

2.6 Integrate shade crops and fast growing fodder trees in Mikania cleared areas with Mikania control program

2.7 Work with local farmers, CFUG members and municipalities to remove satellite population of Mikania

**Output 3 Biodiversity conservation and values are appreciated and integrated into community forestry policy and planning process; communication materials highlighting biodiversity conservation prepared and disseminated for diverse stakeholders**

- 3.1 Develop a manual on integrating overall biodiversity conservation in CF planning and process, include national expert while preparing the manual
- 3.2 Provide training to CFOP practitioners on values of biodiversity and ways of integrating it into CFOPs
- 3.3 Organize three national dialogue with national level stakeholders on biodiversity mainstreaming in CF planning and process
- 3.4 Prepare, publish and disseminate a policy brief on biodiversity conservation with respect to CF
- 3.5 Publish a peer reviewed article based on review of CFOPs to highlight gaps and opportunities of biodiversity conservation in CFs
- 3.6 Write and publish three popular articles on leading national dailies
- 3.7 Prepare, produce and disseminate a video (documentary) to conceptualise, highlight and operationalise overall biodiversity conservation in community forests.

**Output 4 Forest based micro enterprises including ecotourism facilities established and operationalized for enhancement of local livelihoods**

- 4.1 Conduct a feasibility study on forest based microenterprise in Jalthal area
- 4.2 Prepare business plan for Bamboo/rattans, tourism and fisheries
- 4.3 Identify disadvantaged women and support them in enterprise development in agroforestry, ecotourism including fisheries
- 4.4 Designate biodiversity demonstration block, prepare and provide necessary information for visitors
- 4.5 support to establish tourism facilities and prepare brochures highlighting ecological, cultural value of Jalthal forest to attract domestic tourists
- 4.6 Provide skill development training to local people by including women and disadvantaged group of people, promote traditional skills related to bamboo and rattans, support making crafts, utensils and souvenirs out of bamboo and rattans
- 4.7 Support women groups by providing seed fund and technical support to start agroforestry including prioritised non –timber forest products (NTFPs) in designated areas of CF and in private lands
- 4.8 Organise exposure visits for women groups to see ecotourism programs (35 Participants, 18 women)
- 4.9 Organize a sharing and exit workshop with local stakeholders at the end of the project, organise interaction with local government for ownership of the activities and interventions

## Annex 2 Report of progress and achievements against final project logframe for the life of the project

Project summary	Measurable Indicators	Progress and Achievements
<p><b>Impact:</b></p> <p><i>Biodiversity conservation mainstreamed in CF policies and practices, biodiversity in CFs enhanced, forest and wetlands are restored and local people benefit through forest-based enterprise including ecotourism and fisheries</i></p>		<p><i>Project has highlighted biodiversity of Jalthal forest to demonstrate ecological and social significance of biodiversity in community managed forests (Doc 12, 13, 45, 48). Project has demonstrated a model of restoring degraded forest by using agroforestry approach which already shown a promising results benefiting both local people and forest (Doc 23, Doc 12). Projects scientific contribution towards biodiversity understanding and appreciations and practical models of integrating conservation and production in managed forest will have long term impact on biodiversity in community forests of Nepal and beyond.</i></p>
<p><b>Outcome</b></p> <p>Jalthal biodiversity and ecosystems are restored with significant livelihood benefits and biodiversity conservation is mainstreamed in National CF policies and plans</p> <p>CFOP: Community Forest Operational Plans are approved documents guiding forest management, product harvest, silviculture and forest conservation.</p> <p>Year 1, 2, 3 refer to project years (for example year 1 means April 1 2019-March 30 2020).</p>	<p>0.1 22 CFUGs (representing more than 80,000 people) and 5000 local people (CFUG members), of which 50% are women, directly engaged in sustainable forest management activities by end of Year 4.</p> <p>0.2 22 Community Forest Operational Plans (CFOPs) revised with a separate biodiversity section by the end of Year 3.</p> <p>0.3 At least 100 foresters and CFUG leaders (40% women) trained to mainstream overall biodiversity conservation in CFOP by end of year 2.</p> <p>0.4 Jalthal biodiversity assessed and detailed photographic profiles of 40 ( 20 floral and 20 faunal) species prioritised for conservation prepared and communicated through printed booklets (1000 copies) and three field education programs organised for awareness building and biodiversity identification by end of year 3.</p> <p>0.5 Mikania cover in the Jalthal forest reduced by 80% (ca 1500 ha land cleared ) which have direct positive effect on regeneration and conservation of native flora and associated faunal species on those sites by end of the project. Satellite population controlled/destroyed in adjoining areas by the end of project.</p> <p>0.6 Tree regeneration density (seedling density and sapling ) increased by 10 % by end of the of the project in response to land restoration and protection measures adopted.</p> <p>0.7 Five native NTFPs species including bamboo and rattans selected and used to establish forest based enterprise by end of year 3.</p>	<p>0.1 Project was implemented in 22 CFs of Jalthal which benefited a large number of forest users over 1000 people were directly engaged in project activities. Project activities benefited over 5000 active users of forest (Doc 03, 04) .</p> <p>02. Ten CFOPs have been revised with biodiversity provision and biodiversity has been included in annual plans of CFs (Doc 16)</p> <p>03. Biodiversity mainstreaming training was provided to 150 people, which included CFOP practicers and CFUG leaders (Doc 14, 15, 41).</p> <p>04. A detail taxonomic survey of Jalthal forest was conducted (Doc 03, 05, 51) to prepare the biodiversity profile (Doc 05-11, 13 ) and 20 floral prioritised species have been identified (Doc 19, 20) and 1000 printed copies (In Nepali language) have been distributed. Over 50 meetings and interactions were organised to inform diverse stakeholders about biodiversity (Doc 03, 04).</p> <p>05. Mikania has been removed from 500 hectare of forest (Doc 32) this has positive contribution towards native biodiversity. Over 100,000 native seedlings have been rescued from invaded areas (Doc 18)</p> <p>06. Tree regeneration density has been substantially increased, over sixty tree species with over 100,000 seedlings were rescued, nurtured and protected (Doc 18).</p> <p>07. Project has identified turmeric as an important NTFP for intervention, other options were not practiced due to elephant and wildlife damage (Doc 58) and project has identified 10 native species for plantation for fodder for local people (Doc 17).</p> <p>08. More than 100 women have been supported in agroforestry and several of them have generated cash income. Some CFUGs practiced it by using women as wage labour. Agroforestry alone already generated over one million Nepalese Rupees (Doc 36).</p> <p>09. Women could not get benefit from fishery rather they were benefited from Goat keeping and traditional weaving machine (Doc 36). 80 Women generated cash income of over one million Nepalese rupees (Doc 36).</p> <p>10. Project has prepared foundation for long term ecotourism in the area by highlighting tourism opportunities of the forest (Doc 46, 54, 57). Biodiversity demonstration block started attracting tourist at the later stages of the project (Doc 04).</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>0.8 Agroforestry including shade crops, NTFPs generates income for 100 poor households through women groups and contributes in Mikania control by end of year 4.</p> <p>0.9 50 poor households from indigenous and <i>Dalit</i> community benefit from fisheries (with native fish species) in two restored wetlands by end of year 3.</p> <p>0.10 Tourism facilities (information centre, nature guides, brochure) established and 30 local people including 15 women get trainings for tourism enterprise and 15 of them are supported for enterprise development by end of year 3.</p> <p>0.11 Provisions for biodiversity conservation integrated in National CF Guidelines by end of the project.</p>	<p>11. Through series of national level discussion (Doc 42, 43, 04) and capacity building trainings of local stakeholders (Doc 14, 15) and practicers (Doc 41) and by providing insights (40) and through demonstration by research (Doc 13) project has formed a soild foundation towards this outcome of biodiversity mainstreaming in national CF policies and practices.</p>
<p><b>Output 1</b></p> <p><b>Forests are sustainably managed with greater diversity, enhanced structural complexity and improved productivity, and institutional capacity for biodiversity conservation enhanced</b></p>	<p>1.1 Participatory biodiversity assessment conducted, 22 members from CFUG and local, national and international experts/ technicians (Forester, ecologist/ botanist and wildlife biologist) engaged in the assessment and forest biodiversity profile prepared by the end of year 3.</p> <p>1.2 Two trainings on forest biodiversity management (including key attributes and habitat trees) organized in Year 1, 66 people trained from 22 CFUGSs</p> <p>1.3 22CFOP revised and implemented by end of year 3 to incorporate overall biodiversity conservation strategy, approaches and tools by CFs</p> <p>1.4 5,000 bamboo culms planted in forest and private lands, rattan pocket areas identified, and managed by the end of year 2</p> <p>1.5 At least 30,000 native fodder trees in CF and private lands planted by the end of project</p> <p>1.6 Rare, threatened, endangered and unique species and vulnerable ecosystems identified and protection measures are included in CFOP by end of year 3.</p> <p>1.7 Species profiles for 40 species (20 floral and 20 faunal including birds) species prioritised for conservation prepared and disseminated in project sites by end of Year 2.</p>	<p>1.1 Biodiversity survey was conducted in the forest which engaged over 100 local persons and the results showed extraordinary richness of the forest and biodiversity profile prepared (Doc 12, 13, 05).</p> <p>1.2 Two theoretical (Doc 14) and four hands in practice training (Doc 15) on CFOP was provided to over 150 persons in CFUG leadership.</p> <p>1.3 Ten CFOPs have been revised with Biodiversity section while all 22 CFOPs have biodiversity in their annual plans/programs ( Doc-16)</p> <p>1.4 Over 10,000 bamboo, Banana and Elephant apples were planted in Jalthal area (Doc 17, Doc 02) and project prioritised natural regeneration protection (Doc 18)</p> <p>1.5 Over 10,000 babana/bamboo and fodder planted (Doc 17), recognising the huge natural regeneration potential and appreciating it, we emphasised in natural regeneration protection. Over 100,000 native seedlings and saplings were protected and nurtured in invasive species covered areas (Doc 18, 12).</p> <p>1.6 Forest Survey and Biodiversity assessment has identified rare and threatened species (Doc 06,07, 08, 12) and through series of workshops (Doc 19) 20 plant species have been prioritised for conservation action (Doc 20) and CFOPs have now included conservation of rare species (Doc 16)</p> <p>1.7 20 plant species have been prioritised for conservation (1.6, Doc 20). For faunal group it was not possible as locals were not interacting with those directly. For example, people interacted less with frogs, snakes, many birds.</p> <p>1.8 Jalthal Biodiversity register has been prepared and shared with relevant authorities (Doc 21)</p> <p>1.9 Floral checklist has been prepared which covers ca. 600 species (Doc 10)</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>1.8 Jalthal Biodiversity register as envisioned by Nepal Biodiversity Strategy and Action Plan (NBSAP 2014-2020) prepared and maintained by mid of year 3.</p> <p>1.9 Checklist of all plant species in Jalthal forest prepared by end of year 2.</p> <p>1.10 Tree regeneration density, seedling and sapling density increased by 10% and 5% respectively by end of the project.</p> <p>1.11 Prepare and publish a comprehensive account of Biodiversity of Jalthal forest in Nepali (500 copies) and English (pdf file) language by end of year 4 [This document expected by local people and stakeholders]</p>	<p>1.10 Project has worked to protect and nurture native species and natural regeneration which has important role in increasing density (Doc 18, 22).</p> <p>1.11 Biodiversity profile in English prepared (Doc 13) and Nepali published (Doc 23) separately. Published Nepali profile has been distributed free and English material has been made available online through FA website and social media.</p>
<p>Activity 1.1</p> <p>1.1 Organize planning workshops cum interaction programme with local stakeholders at project site; Inception workshop attended by project partners, CGUG members (3 from each CGUG) and representatives from local governments and other stakeholders</p>		<p>Inception cum interaction programme was organised on 9<sup>th</sup> June 2019, which was attended by project partners, representatives of local governments and CFUG members and other stakeholder, a total of 100 individuals attended (Doc 1). Similarly project exit (now called as sharing workshop) organised on 28 March 2023 in project site Jalthal (Doc 02) it was also attended by diverse stakeholder. Similarly 50 other smaller meetings were organised with stakeholders during the project period (Doc 03).</p>
<p>1.2 Organize 'Field education programme' for local people to demonstrate and identify key species, habitat and traditional Ecological knowledge associated with bio resources, Rarity and conservation status and ecological features of species and ecosystem also discussed and informed</p>		<p>1.2 Over 20 forest transect walks accompanied by local people were organised during the biodiversity and ecosystem survey (Doc 01, 02, 05)</p>
<p>1.3 Hold meetings with CFUGs to complement the field education programmes to identify key biodiversity, rare and threatened species and traditional ways of management</p>		<p>1.3 Over 50 different meetings and other 75 activities were conducted, these activity and meetings were targeted to help people in identifying various features of forest biodiversity (Doc 03, 04, 05, 19)</p>
<p>1.4 Organize trainings to CFUG leaders to conceptualise them overall biodiversity, ecological uniqueness and significance of Jalthal, and bringing biodiversity to CF process</p>		<p>1.4 A total of five trainings were organised for CFUG leaders (Doc 14, 15 ) to conceptualise overall biodiversity and ecological uniqueness of the forest. Moreover these issues have been presented in bigger meetings as well like sharing workshops (Doc 14, 15).</p>
<p>1.5 Support CFUGs in plantation of bamboo culms and other fast growing native fodder species, organise interaction with locals to identify needs and consult experts for feasibility</p>		<p>1.5 Plantation of native seedlings were organised during monsoon season and priority has given to native seedlings (Doc 01, 17)</p>
<p>1.6 Work with CFUGs to revise and renew the forest operational plans considering key attributes of forest biodiversity (flora, fauna, birds, habitats, habitat trees, ecological complexity, ecological process, water points, wetlands, marshes, threatened and exploited taxa etc)</p>		<p>1.6 Five trainings were organised (Doc 14, 15) and Ten CFOPs have been revised with Biodiversity section while all 22 CFOPs have biodiversity in their annual plans ( Doc-16).</p>

Project summary	Measurable Indicators	Progress and Achievements
1.7 Conduct participatory biodiversity assessment of Jalthal forest bringing experts and local people together and maintain database, support KAFCOL master students in thesis on Jalthal biodiversity, management options and human nature interaction		1.7. Biodiversity survey was conducted throughout the project period but mainly focused activities were conducted during year 1 and 2 and seven students from Tribhuvan University and KAFCOL were engaged in the (Doc 05, 24, 25, 51, 59)
1.8 Species are prioritised for conservation using local and expert knowledge coupled with biological data		1.8. Four workshops were organised to prioritise species for conservation (Doc 19), and 20 floral species were prioritised.
1.9 Prepare and publish booklet containing profile of species prioritised for conservation		1.9 Species profile booklet in Nepali language for 20 plant species with colour photographs published and distributed to over 800 people in the project site and beyond (Doc 20)
1.10 Prepare Jalthal biodiversity register and keep the register in relevant locations		1.10 Jalthal Biodiversity register has been prepared and placed in project site (Doc 21)
1.11 Organize programmes for forest fire, poaching control and conservation of threatened and rare species (in collaboration with DFO, FECOFUN and Local Governments)		1.11 Fire protection/prevention training was organised in year 2 and 3 (Doc 04) and rare and threatened species were discussed during trainings and workshops (Doc 03, 04, 13, 14)
<p><b>Output 2. Mikania invasion including satellite populations substantially reduced and controlled, degraded forest areas and wetlands reclaimed and converted into productive systems through ‘integrated site management’</b></p> <p>Invasive Alien Plant Species (IAS)</p>	<p>2.1 Spatial extent and abundance of Mikania including its environmental correlates analysed for its control, management and monitoring by end of the 3<sup>rd</sup> quarter of year 1; Endline data by end of year 3.</p> <p>2.2 Participatory Mikania management and control plan for Jalthal prepared by third quarter of year 1.</p> <p>2.3 Bilingual (Nepali/local and English) colour booklet (1000 copies) on IAS of Jalthal forest prepared and distributed By end of year 2.</p> <p>2.4 Mega campaign for <i>Mikania</i> control organized annually (ca 10,000 man-days workers involved altogether) to control Mikania in the forest; satellite populations around the forest are also destroyed by end of year 3.</p> <p>2.5 Mikania cover in the Jalthal forest reduced by 80% (ca 1500 ha land cleared) by the end of year 3.</p> <p>2.6 Existing and potential use of Mikania identified, promoted and communicated (roughly 5 metric tons of Mikania biomass turned into compost and bio-gas) by end of the project</p> <p>2.7 Two of the largest wetlands in the Jalthal forest restored by removing Mikania and controlling siltation by end of year 3.</p>	<p>2.1 Spatial analysis revealed that over half of the forest is infested with invasive species (Doc 26), however end line data was collected little different way to analyse the project impact on Mikania (Doc 27).</p> <p>2.2. Through series of meetings and workshops (Doc 03) project has suggested Natural regeneration rescue as guiding framework for mikania management (Doc 31)</p> <p>2.3 Bilingual book covering 27 IAPS has been published (This builds on is collaboration and work that before the project) and it served as an important awareness material (Doc 28). Project also published two leaflets on IAPS in Nepali language (Doc 29, 30).</p> <p>2.4. Campaigns for Mikania removal has been organised in all 22 CFs involving well over 10,000 man days' work. This has increased awareness on invasive species and CFUGs action towards it has been improved (Doc 32)</p> <p>2.5. Mikania has been removed in over 500 hectare forest (Doc 32). (Explanation about this output is in section 3.1).</p> <p>2.6. Compost production using Mikania and other IAPS has been piloted and over 60 metric tons of compost has been produced (Doc- 33)</p> <p>2.7. <i>Jhilka pokhari</i> and <i>Latamari</i> have been restored, and there has been activities in other water holes as well (Doc 34)</p>
Activities	2.1 Carryout Mikania cover assessment using remote sensing and ground trothing tools (it serves as baseline data as well) and carryout endline data collection	2.1 Mikania Cover in the forest was assessed in 2019 (Doc 26).

Project summary	Measurable Indicators	Progress and Achievements
2.2 Organize workshop with local stakeholders to prepare strategies and plans for Mikania control		2.2. Workshops targeting the Mikania management ( Doc 35) has been organised, similarly the issues have been discussed in several occasions (Doc 03, 04).
2.3 Campaign and conduct activities for Mikania clearance in forests in wider stakeholders participation including local government representative, use extra labour and provide cash or gift for contribution		2.3 Mikania removal campaign have been organised participating local people and over 10,000 man days' work has been completed (Doc 32)
2.4 Identify and promote technologies to use Mikania biomass (Support local farmers to make compost and bio-gas out of Mikania weeds)		2.4 Compost has been used as pragmatic and feasible model of Mikania biomass management (Doc 33).
2.5 Undertake programs to restore water in collaboration with local governments and CFUGs		2.5 Two major wetlands and three other water holes have been restored/improved in the forest (Doc 34).
2.6 Integrate shade crops and fodder trees in Mikania cleared areas with Mikania control program		2.6. Agroforestry model has been piloted with Turmeric as intercropping. So far results are promising (Doc 36, 12)
2.7 Work with local farmers, CFUG members and municipalities to remove satellite population of Mikania		2.7. Satellite population of Mikania and newly introduced invasive plant species (Mimosa diplotricha) has been cleared by engaging local people (Doc 04, 32, 12)
2.8 Prepare, publish and disseminate factsheets of Jalthal Biodiversity (Status, threats, values and conservation)		2.8 These information have been covered in the English profile of the forest (Doc-13, 37)
2.9 Prepare and publish a detail profile of Jalthal Biodiversity in Nepali language		2.9 Jalthal biodiversity profile in Nepali language has been published in special issue of Hamro Ban sampada (Doc 23)
<b>Output 3. Biodiversity conservation and values are appreciated and integrated into community forestry policy and planning process; communication/awareness raising materials highlighting biodiversity conservation prepared and disseminated for diverse stakeholders</b>	<p>3.1 Gaps and opportunities of biodiversity conservation in CF identified through detail review of selected 50 CFOPs in year 1.</p> <p>3.2 A manual for integrating biodiversity in CFOP developed for facilitators/ practioners by end of year 1.</p> <p>3.3 20 practitioners/facilitators (Government officers) are trained on biodiversity integration in CFOP in year 1.</p> <p>3.4 National level stakeholders (n=60) sensitised and informed on biodiversity integration in CF policy and practice by end of the project</p> <p>3.5 Challenges and opportunities for mainstreaming biodiversity conservation in CF highlighted through a policy brief (500 copies) in year 3.</p>	<p>3.1 65 CFOPs from various parts of Nepal have been reviewed to analyse the gaps in biodiversity in CFs (Doc 38)</p> <p>3.2. A booklet to facilitate biodiversity integration in CFs has been prepared, published and disseminated (Doc 40).</p> <p>3.3 Eighteen CF practicer , mainly govt officers attended training on biodiversity integration in CFs (Doc 41).</p> <p>3.4. Two workshops were organised in Kathmandu which engaged stakeholders from policy and conservation sectors.</p> <p>3.5. A policy brief discussing various issues of biodiversity mainstreaming in CFs has been drafted and shared in our workshops with policy circles. The final copy will be shared later (Doc 44).</p> <p>3.6. Project has made a notable achievement in terms of communication materials publications, six newspaper articles have been published to highlight ecological significance of biodiversity in CFs and measures of conservation (Doc 45, 47).</p> <p>3.7. A documentary has been published and shared in social media which already viewed by over 20K (Doc 46, 47).</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>3.6 Wider audience informed on importance of biodiversity and its conservation measures through at least three newspaper articles on national dailies (One each in Year 1, 2 and 3).</p> <p>3.7 A documentary on good practice linking biodiversity conservation and livelihood produced and disseminated by end of year 2.</p>	
<b>Activity 3.1</b> Develop a manual on integrating overall biodiversity conservation in CF planning and process		3.1 A booklet on biodiversity integration in CF has been published (Doc-40)
3.2 Hold training to CFOP practicers on values of biodiversity and ways of integrating it into CFOPs		3.2 A training was organised for CFOP practicers on March 2020 in Dharan, Koshi province.
3.3 Organize a national dialogue with national level stakeholders on biodiversity mainstreaming in CF planning and process		3.3 Two national level workshop and one student workshop was organised in Kathmandu in March 2022 and March 2023 on biodiversity mainstreaming in CF planning.
3.4 Prepare, publish and disseminate a policy brief on biodiversity conservation with respect to CF		3.4. Policy brief has been drafted and will be published by ForestAction Nepal in September 2023.
3.5 Publish a peer reviewed article based on review of CFOPs to highlight gaps and opportunities of biodiversity conservation in CFs		3.5 A peer reviewed article has been published in Nationally renowned journal (Sharma et al 2021 Doc-48)
3.6 Write and publish three popular articles on leading national dailies		3.6. Six articles have been published in Nepali language (Doc-45)
3.7 Prepare, produce and disseminate a video (documentary) to conceptualise, highlight and operationalise overall biodiversity conservation in community forests		3.7. A video documentary has been prepared and shared with stakeholders (Doc 46)
<b>Forest based enterprises including fishery and ecotourism facilities established and operationalized for enhancement of local livelihoods</b>	<p>4.1 A scoping report on potential forest based enterprise prepared by the end of Year 1. 4.2 A business schemes of selected enterprise (Tourism, fisheries, bamboos and rattans) prepared by the end of Year 1.</p> <p>4.3 Women (n=100) from marginalized and disadvantaged groups trained on enterprise establishment and operation by end of year 3.</p>	<p>4.1 Scoping of agroforestry and enterprise has been conducted and report has been prepared (Doc 49).</p> <p>4.2 Fishery and compost related plans have been prepared ( Doc 50) but plans for bamboo and tourism could not be materialised.</p> <p>4.3 Over 100 women from disadvantaged groups are trained on various income generating activities (Doc 36, 03, 04).</p> <p>4.4 Women have made a substantial increase in cash income through projects agroforestry interventions (Doc 36).</p>

Project summary	Measurable Indicators	Progress and Achievements
	<p>4.4 20% increase in household income from women-led enterprise (n=100 households) agroforestry, shade crops and NTFPs by the end of year 2.</p> <p>4.5 Seedlings of fodder, NTFPs ( five species) and bamboo planted (n=30,000) by end of year 3 (This activity is linked with forest management as well in output 1)</p> <p>4.6 20% increase in household income of of indigenous people and Dalit (n=50) from fishery in restored wetlands by end of year 3.</p> <p>4.7 At least 30 local youths (half are women) trained on ecotourism and at least 15 youths generate income through tourism related enterprise by end of year 3.</p> <p>4.8 Biodiversity Demonstration Block (BDB) identified, promoted and characterised (Name, ecology, conservation status) for eco-tourism by second quarter of year 3.</p>	<p>4.5. Over 10,000 fodder seeds/seedlings have been planted in forests and over 350 kg seeds of seasonal fodder distributed to over 150 households (Doc 17).</p> <p>4.6. Fishery was implemented but it could not provide the desired outcome.</p> <p>4.7 Over 50 local youths got exposure to tourism facilities (Doc 52, 53) and foundation for tourism has been prepared (Doc 46)</p> <p>4.8 Biodiversity demonstration block has been prepared in Durgabhitta CF and it has already attracted local and tourists from India (Doc 54 ).</p>
4.1 Conduct a feasibility study on forest based microenterprise		4.1 Forest based microenterprise assessment was conducted in 2022 (Doc 49, 50).
4.2 Prepare business plan for Bamboo/rattans, tourism and fisheries		4.2. Business plan was prepared for fishery and compost (Doc 50).
4.3 Identify disadvantaged women and support them in enterprise development including fisheries		4.3 Disadvantaged women were identified and supported in agroforestry and goat keeping (Doc 03, 04, 36).
4.4 Designate biodiversity demonstration block, prepare and provide necessary information for visitors		4.4 Biodiversity demonstration block identified and communication materials have been prepared and trees are also labelled (Doc 54)
4.5 support to establish tourism facilities and prepare brochures highlighting ecological, cultural value of Jalthal forest to attract domestic tourists		4.5. Brocher has been prepared highlighting the Jalthal forest (Doc 57)
4.6 Provide skill development training to local people by including women and disadvantaged group of people		4.6 Disadvantaged women were provided with necessary trainings in goat keeping and agroforestry and others were supported with improved weaving tools (Doc 36)
4.7 Support women groups by providing seed fund and technical support to start agroforestry in designated areas of CF and in private lands		4.7. Women members were supported to practice agroforestry and goat keeping (Doc 36)

Project summary	Measurable Indicators	Progress and Achievements
	4.8 Organise exposure visits for women groups to see ecotourism programs (35 Participants, 18 women)	4.8 Two exposures visit (in 2020 and 2023) were organised for local people which was attended by over 20 women.
	4.9 Organize a sharing and exit workshop with local stakeholders at the end of the project	4.9 Project progress sharing workshop was organised on March 2023 in the project site (Doc 02)

## Annex 3 Standard Indicators

The Biodiversity Challenge Funds (BCFs) use high quality and accessible Monitoring, Evaluation and Learning (MEL) to enable scaling, replication and increase the impact of the funds and the projects we support.

By asking project teams to align indicators with the Darwin Initiative Standard Indicators, we aim to increase our contribution to the global evidence base for activities that support biodiversity conservation, poverty reduction and capability & capacity.

The tables below are provided to assist project teams in reporting against Standard Indicators. Please report against the Standard Indicators that you have selected specifically for your project in Table 1 below. Refer to the Standard Indicator Guidance & Menu available on the [Darwin Initiative](#) website for guidance on how to select indicators, as well as how to disaggregate reporting within your chosen indicators.

We recognise that our menu cannot cover all the potential monitoring needs for all projects – where necessary you can select indicators from other sources or develop your own. See our BCF MEL guidance on best practices for selecting and developing indicators.

**Table 1 Project Standard Indicators**

Indicator number	Darwin Initiative Standard Indicator	Name of Indicator after adjusting wording to align with DI Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DI A 01	Number of people from key stakeholders	CFOP practicener training	People	Government/local	18			18	20
DI A 01	Number of people from key stakeholders	CFOP training to local people	People	Gender	100	30	20	150	100
2	Thesis on biodiversity and forest management	Thesis	5M, 2F	Nepali	3	2	2	7	7
11A	Research results		NA		1	1	2	6	3
9	Species management plan		NA			1	1	1	2
10	Identification manual for useful plants		NA			20	10	20	30
7	Awareness leaflets		NA		2	3	2	5	7
14 A	Workshops/trainings		NA		7	6	3	13	15
14 B	Conference presentation		M	Nepali	0	1	3	4	4
22	Permanent plots		NA					0	2
20	Computers, Cameras, Printers, GPS		NA						

In addition to reporting any information on publications under relevant standard indicators, in Table 2, provide full details of all publications and material produced over the last year that can be publicly accessed, e.g. title, name of publisher, contact details, cost. Mark with an asterisk (\*) all publications and other material that you have included with this report.

**Table 2 Publications**

<b>Title</b>	<b>Type</b> (e.g. journals, manual, CDs)	<b>Detail</b> (authors, year)	<b>Gender of Lead Author</b>	<b>Nationality of Lead Author</b>	<b>Publishers</b> (name, city)	<b>Available from</b> (e.g. weblink or publisher if not available online)
Documentry of Jalthal Biodiversity	Audio visual	ForestAction Nepal/2023	NA	Nepal	ForestAction Nepal	<a href="https://www.youtube.com/watch?v=QhLfddbpZs">https://www.youtube.com/watch?v=QhLfddbpZs</a>
Jalthal Forest special issue	Book	Sharma et al 2022/ForestAction Nepal	F	Nepali	ForestAction Nepal	<a href="https://forestaction.org/publication/hamro-ban-sampada/">https://forestaction.org/publication/hamro-ban-sampada/</a>
Jalthal: Species prioritised for conservation	Booklet	Sharma and Adhikari/2023	M	Nepali	ForestAction Nepal	<a href="https://forestaction.org/publication/books-booklets/">https://forestaction.org/publication/books-booklets/</a>
Project has made other two dozen publications which have been provided in supplementary Doc 45, 47, 48						

## Annex 5 Supplementary material (optional but encouraged as evidence of project achievement)

Supplementary materials will be attached in an email To BFC. Document 001 presents the details of such supporting materials.

### Checklist for submission

	Check
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:BCF-Reports@niras.com">BCF-Reports@niras.com</a> putting the project number in the Subject line.	X
<b>Is your report more than 10MB?</b> If so, please discuss with <a href="mailto:BCF-Reports@niras.com">BCF-Reports@niras.com</a> about the best way to deliver the report, putting the project number in the Subject line.	
If you are submitting photos for publicity purposes, <b>do these meet the outlined requirements (see section 10)?</b>	X
<b>Have you included means of verification?</b> You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	X
<b>Do you have hard copies of material you need to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	X
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 10)?	X
Have you involved your partners in preparation of the report and named the main contributors	X
Have you completed the Project Expenditure table fully?	X
Do not include claim forms or other communications with this report.	