# Darwin Initiative Main Annual 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: 30th April 2022**

## Darwin Initiative Project Information

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| 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 (BRGE)<br>Kathmandu Forestry College (KAFCOL)<br>Federation of Community Forest User Groups, Nepal (FECOFUN) Jhapa<br>Division Forest Office (DFO), Jhapa |
| Darwin grant value | **298,439 GBP** |
| Start/end dates of project | 01 June 2019 / 31 March 2023 |
| Reporting period (e.g. Apr 2021 – Mar 2022) and number (e.g. Annual Report 1, 2, 3) | Apr 2021 – Mar 2022, Annual report 3 |
| Project Leader name | Dr Naya Sharma Paudel |
| Project website/blog/social media | https://www.facebook.com/JalthalBiodiversity<br>https://twitter.com/BiodiversityNep<br>https://www.flickr.com/photos/184289092@N07/ |
| Report author(s) and date | Lila Nath Sharma, Naya Sharma Paudel, Muna Bhattarai, Ambika Prasad Gautam |

## 1. Project summary

Nepal's Community Forestry (CF) programme, pioneered in the 1980s, has been largely successful in increasing forest cover, restoring degraded hill slopes and bringing substantial economic and social benefits to rural people. Currently over 22,000 Community Forests User Groups (CFUGs), manage about 2 million ha. forest[1]. Despite these achievements, regulatory instruments, management plans, and institutional practices focus narrowly on a few timber species[2]. Consequently, CF management is heavily skewed towards extractive use, and non-monetary values-

[1] Community forestry division, Ministry of forests and Environment 2022

[2] Acharya KP 2004. Does Community Forests Management Supports Biodiversity Conservation? Evidences from Two Community Forests from the Mid Hills of Nepal. Journal of Forest and Livelihood 4(1): 44-54

including biodiversity and ecosystem services are largely ignored[3]. There is a lack of concrete effort to mainstream biodiversity within CF management as recognized by Nepal's NBSAP (2014-2020)[4].

This project is taking Jalthal forest (Figure 1) as a model forest system to develop strategies to promote biodiversity and livelihoods while addressing site specific threats to biodiversity, based on participatory action research. Jalthal is a 6000 ha remnant moist tropical forest with diverse ecosystems (mixed broadleaved forest, swamps, lakes, rivers, hillocks). It is an Important Plant Area (IPA) with several threatened flora (*Cycas pectinata, Magnolia champaca, Rauvolfia serpentina, Dioscorea deltoidea*)[5], and habitat of several threatened faunas (*Manis crassicaudata*, *Elephas maximus*, *Leptoptilos javanicus*). A recent survey by our project has revealed that the forest is among the richest site in terms of floral diversity in Nepal and has a unique assemblage of plant species from different floristic regions of the world. The forest is the lowest elevation forest of Nepal but also has a population of several species primarily occurring in midhills of Nepal. The forest is managed by 22 CFUGs and is an important livelihood source for over 80,000 local people including some indigenous groups - *Meche, Santhal and Rajbanshi*.

However, the Jalthal forest is being subjected to multiple threats. These include invasive species, human-wildlife conflict (particularly human-elephant), poaching, illegal timber extraction and timber focused forest management. Invasion of *Mikania micrantha* has become the most critical one. Timber focused management coupled with *Mikania* invasion has hampered biodiversity which in turn has negatively impacted forest dependent local people. Current forest management practices often focus on high value timber species namely Sal (*Shorea robusta*) leading towards increased homogenization and decreased floral diversity.

The project aims to mainstream biodiversity conservation in Nepal's CFs through development of model CFs at site level and capacity building coupled with national level policy dialogues. Following are the specific objectives of the project:

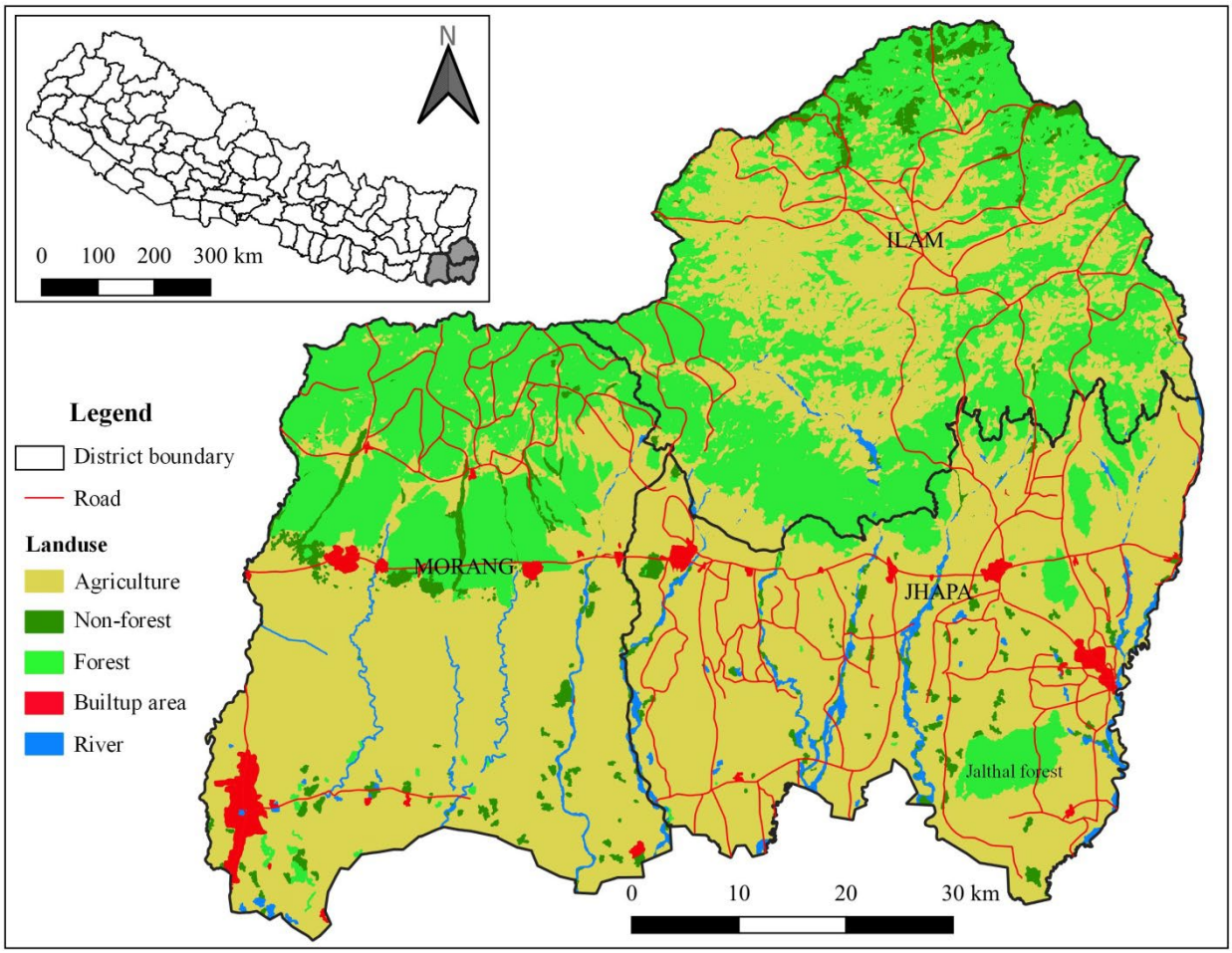
1. To improve forest condition and conserve forest biodiversity through sustainable forest management and capacity enhancement of community forests user group (CFUGs).
2. To demonstrate models of forest restoration by managing and controlling the invasive alien plant species (IAPS), particularly *Mikania micrantha*.
3. To mainstream biodiversity conservation in community forestry program and policies.
4. To develop practical models of integrating biodiversity and forest-based enterprises for livelihood benefits of forest dependent poor and marginalized people.

This project is being implemented in Jalthal forest in Jhapa district. Jhapa district is located in the eastern lowland of Nepal and borders with India in the east and south (Figure 1). The project started in June 2019 and was supposed to complete in May 2022. However, due to the Global pandemic, we could not complete some of the activities. Therefore, we requested for its extension till March 2023, which was kindly considered by DI. We will complete most of the activities before September 2022 and will report in time.

[3] Shrestha UB et al. 2010. Biodiversity conservation in community forests of Nepal: Rhetoric and reality. International Journal of Biodiversity and Conservation Vol. 2 (5): 98-104.

[4] Nepal Biodiversity Strategy and Action Plan (2014-2020). Government of Nepal.

[5] Bhattarai KR 2017. Enumeration of Flowering plants of Terai Sal forest of Jalthal, Eastern Nepal. J. Plant Res. 15(1): 14-20




## 2. Project stakeholders/ partners

ForestAction Nepal (FAN) is the lead organisation and Federation of Community Forests Users Nepal (FECOFUN), Kathmandu Forest College (KAFCOL) and Division Forest Office (DFO) Jhapa are collaborating institutions from Nepal and RBGE is a collaborating institution 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 Principal of KAFCOL are organised in Kathmandu. Project activities are decided jointly and in all field activities FECOFUN and DFO representative are present. Communication with FECOFUN and DFO is mainly through telephone and in person meetings. Communication with RBGE is done through Skype, zoom and Facebook messenger. In this year a joint meeting of KAFCOL, FAN and RBGE was organised in Kathmandu (Doc 01).

The project has also developed collaboration with experts from other research institutions in Nepal. Mr Asmit Subba from Nature Conservation and Study Centre (NCSC) joined our team to complete faunal survey and he visited the forest four times. In this year, Dr Lila Nath Sharma presented about the project and shared results in four workshops and conferences including one international (Doc 01). In March 2022, FAN joined Department of Plant Resources (DPR) to organise national level workshop in Kathmandu (Doc 14).

Project worked with Mr Kamal Maden a columnist in National media and biodiversity analyst to highlight importance of Jalthal forest. Several communication materials are produced out of this collaboration (Doc 20, 21, 36)

Similarrly, the project team particularly the project manager Dr. Lila Sharma visited several authorities in connection to the project and conservation of the Jalthal forest (Doc 01)

## 3. Project progress

## 3.1 Progress in carrying out project Activities

Project has made a satisfactory progress in accomplishing planned activities in the year 3. Progress against each activity has been presented below. The activities numbered in bold are followed by supporting documents. Some of the supporting documents have been already published, some are currently in draft version which will be published soon while others are just project reports. Draft reports are subject to editing before publication. Status of the supporting documents has been provided in Annex 4. Several of our supporting documents are in Nepali language. Most of the documents are in Nepali are in public domain and most of them reached to target audience, mainly the local people. We have given English summary of Nepali document in Doc 34.

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

Instead of organising large meetings, we organised several small and informal meetings to plan, update and share the project activities (1.1, Doc 01). Forest transect walks and species identification and awareness programs were organised involving over 200 CFUG leaders and member (1.2, Doc 01, 02). We organised a sharing meeting at Chaukibiran CF and among 22 CFUGs in Jalthal (1.3, Doc 01, 02). A sharing workshop cum interaction was organised with CFUG leaders to discuss about status of biodiversity and addressing threats. The program was attended by 56 local people from 22 CFUGs (1.4, Doc 13, 02). Project supported plantation of 1200 Babmboo culms and 1200 banana (1.5, Doc-02). Most of the grown banana trees were eaten by elephant in 7th month of plantatation (which was as expected). Project supported in revision of CFOP of Kamaldhap Rampokhari, Ranakali and Ratamate CF (1.6, Doc 04). Project has continued previous year's survey on various taxonomic groups (1.7a, Doc 05,06) and project has published Jalthal biodiversity informatics (Doc 07). Dr Mark Watson and Dr Bhaskar Adhikari from RBGE visited the forest and organised brief field work to collect herbarium 1.7b, Doc 01). One species prioritisation workshop was organised on 4th September 2021 and a draft register has been prepared last year (1.8, Doc 03). A colour page booklet in Nepali language has been prepared, printed and disseminated (1.9, Doc 08). A workshop and field demonstration program were organised in Pathibhara Kalika CF and local people were provided with fires safety gears (1.11, Doc 02).

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

A workshop was organised on 18 February 2022, to discuss about project activities that was used as forum to discuss about mikania and invasive species management (2.2, Doc 02) and this issue was discussed on several other small meetings and during field activities (Doc 01, 02). Mikania removal activity was organised in all 22 CFUGs and more than 75 hectare of forest was cleared this year. Over 2800-man days was involved in the removal campaign (2.3, Doc 09). We have experimented various methods of compost production using local materials and invasive species biomass and a total of 32 tons of compost has already been produced (2.4, Doc 02). We are continuously working in a degraded but ecologically important wetland (namely Jhilka Pokhari), this year also we supported, both technically and financially, in this and other two wetlands (2.5, Doc-10). We organised a campaign for removing the newly identified invasive species ( Mimosa diplotricha) in recently gravelled roads in the project site (2.7, Doc-01, 26). An info graphic summarising Jalthal research output (2.8, Doc 07) and a broacher in English (2.8, Doc 11) has been prepared to highlight ecological significance of the forest. We are working towards Jalthal biodiversity profile but need time to share the material (2.9, Doc-in progress).

**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**

A document in Nepali language has been prepared to suggest the issues and strategies to integrate biodiversity conservation in community forest, and it has been prepared, printed in the form of booklet and disseminated (**3.1**, Doc 12). A training for CFUG leaders was organised on 8-9 December 2021 in Pathibhara Kalika which was attended by 48 people from six CFUGs (**3.2**, Doc13). A national dialogue on biodiversity issue on CF was organised on March 24, 2022 The event was attended by 50 participants from various organisation including government of Nepal (**3.3**, Doc 14). A draft of policy brief has been prepared and it will be finalised after another national level workshop in August 2022 (3.4, Doc 15). An article is under review in Journal of Forest and Livelihood which highlights biodiversity conservation challenges and opportunities in Nepal's CF (**3.6**, Doc 16). A video documentary draft has been prepared and will be finalised within few months (**3.7**, Doc 17)

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

Disadvantaged women from CFUGs have been selected and they are supported in fisheries and agroforestry. A group consisting of nine women from disadvantaged and poor families have been selected and supported in fishery (Doc 02). Agroforestry has now been practiced in five CFUGs and already a 30 quintal of turmeric has been harvested. A

total of 80 women from poor families are benefited by this intervention (4.3, Doc 18). A biodiversity demonstration block has been established in Durgabhitta and Abhimukteswar CF and an information leaflet in Nepali language has been prepared and disseminated (4.4, Doc-19). For tourism facilities, we have prepared a broacher in English (4.5, Doc 11) and developing a documentary (4.5, Doc 17). These will form foundation for tourism Project. The project has supported over 150 women in five CFUGs in fisheries and agroforestry. Similarly, to increase income of forest dependent poor we have also supported in compost production in five CFUGs and goat keeping in two CFs (4.7, Doc 02, 18).

## 3.2 Progress towards project Outputs

Projects activities have contributed to multiple outputs. However, they are not equal across the four outputs. We have achieved more than we expected in output 1 and 2. Performance against output 3 is satisfactory. We need to work more in remaining time in output 4. In output 4, some indicators are already met while we are working on others. Specific achievement against each output is presented below.

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

Project initiated comprehensive biodiversity assessment in 2019 and now it's almost complete for most of the taxonomic groups. The assessment is a first of its kind carried outside the protected areas network in Nepal Which is a solid foundation for the management of the forest (Doc 05, 06,07). The project has highlighted the importance of Jalthal forest and its biodiversity by documenting and disseminating its research findings through different media outlets (Doc 16, 22, 23). The project has been able to aware community forest user group (CFUG) leaders and members about the key biodiversity issues of Jalthal forest by organising forest transect walks (Doc 01, 02), workshops and trainings (Doc 13). We have been working with national and local media to sensitise different stakeholders on key issues in Jalthal forest conservation and to accelerate effective management (Doc 20, 21). In general, our activities have initiated and laid the foundation for evidence-based management of Jalthal forest with biodiversity appreciated and conserved (Doc 16).

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

Many local people often understand this project as 'Mikania project'. This is because of projects activities around Mikania has gained more attention than others. Project has mobilised over 2800 people and cleared invasive species in over 75 hectare of invaded forest (Doc 09). Similarly, the project also took initiation for early detection and control of newly identified invasive species (Doc 01, 26). Project has piloted new approach for the management of invasive species and restoration of degraded forest patches. Project has introduced agroforestry approach of land restoration and monitoring the progress (Doc 01, 02, 18). The intervention has resulted in good natural regeneration while supressing Mikania and other invasive species (Doc 27). We have focussed in natural regeneration rescue instead of plantation. Project has contributed to public discourse towards native plantation, natural regeneration and exotic plantation for forest restoration (Doc 28). In addition, project has supported communities in producing compost manure and over 32 metric tons of compost has already been produced, this provides an economic incentive to the management of the invasive species (Doc 02). Project has initiated restoring the wetlands that are ecologically important but degraded (Doc 10, 01, 02).

**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**

Project approach to understand biodiversity (Doc 07), sensitising stakeholders about the importance of biodiversity (Doc 08) and highlighting threats (Doc 22, 23, 37) has resulted a notable change in forest management practices. CFUGs have now included provisions related to biodiversity and invasive species management in their annual plans and Operational Plans (Doc 04). Project has prepared a booklet to assist CFUGs to account biodiversity in CF (Doc 12). Project has published most of its communication materials in Nepali language targeting the local people (Doc, 12, 22, 23, 28). Project has also highlighted importance of the forest through Facebook page which has 1.3 K followers, mostly local people. Project has shared the project results (Doc 02) with local and national level (Doc 14) stakeholders and wider audience (Doc 01) to highlight biodiversity significance in managed forest.

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

Among our three livelihood components - agroforestry, goat keeping and fisheries, we are underperforming in fishery but we are excited with performance in agroforestry. There have been satisfactory performance in goat keeping (Doc 02, 01, 18) and early results are promising. Compost production out of invasive species and other local material is another promising intervention benefiting both people and forest (Doc 02). We have identified poor women from CFUGs and supported turmeric cultivation in five CFUGs directly benefitting to poor families (Doc 18). Agroforestry practices in degraded forest area are expected to improve degraded forest alongside income generation opportunities

for locals (Doc-27, 18). Publication and dissemination of Brochure has helped highlight Jalthal's nature and biodiversity that will encourage nature-based tourism (Doc 11). Project has established Biodiversity Demonstration Block, which is expected to promote education and tourism; so far hundreds of school students already benefited from the block (Doc 19, 01).

### 3.3 Progress towards the project Outcome

Project is making a satisfactory progress towards the target. Based on the current results, we are confident that we meet most of the output and outcome indicators. Indicators are still valid and useful to measure the progress.

The project has developed a scientific foundation on the importance, richness and uniqueness of the Jalthal forest, and biodiversity for evidence-based management of forest (Doc 05-08). We have conceptualised and communicated invasive species as a major management challenge in Jalthal forest (Doc-17, 26). Capacity of CFUGs has increased which will support in mainstreaming biodiversity conservation and invasive species management in their CFOPs and annual plans (Doc 04, 12, 13). Our agroforestry and natural regeneration approach to forest restoration has promising result in forest restoration (Doc 31, 32).Compost production can ensure sustainability of invasive species management (Doc 01, 02) and forest restoration.

### 3.4 Monitoring of assumptions

**Assumption 1**: CFUGs and stakeholders acknowledge *Mikania* invasion as a major problem. **Comments**: Yes, CFUGs and stakeholders agreed that it is a serious problem (Doc 01, 02, 09).

**Assumption 2:** There will be broader political support in Jalthal forest management and restoration programmes. **Comment**: There is consensus among different stakeholders but it has not been fully translated in their actions (Doc 02). In Jalthal wildlife hunting is still a problem but there lacks a political support to control it.

**Assumption 3**: Local governments also develop plans for tourism development and livelihood support in Jalthal area. **Comment**: Local governments have prioritised tourism in their plans, however, local governments could not make any significant progress to develop tourism in the area. They were occupied with infrastructure development such as road, dams and buildings.

**Assumption 4:** *Mikania* 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 requirement (Doc 09, 02). There needs a persistent efforts for next few years to fully recover the sites.

**Assumption 5**: Policy/decision makers in the Ministry of Forest and Environment in federal and provincial government cooperate. **Comment**: Forest policy 2015 and Federal Forest Act 2019 have supportive provisions on forest restoration, biodiversity conservation and invasive species management. We have also received good support from the provincial government. However, province no 1 government has planned to construct the road which has multiple and long term negative impacts on forest and biodiversity of Jalthal forest (Doc 29, 30, 01)

**Assumption 6**: Human wildlife (particularly Elephant) conflict minimised: **Comment**: Yes, after solar fencing construction by the Ministry of Forest and Environment, the conflict has been reduced in the project site. However, the regular maintenance of the fence is still a challenge.

**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 was good cooperation from the CFUGs and they have upgraded Mikania cleaning as a widespread campaign (Doc 01, 09).

### 3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation

**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**

Projects current activities in terms of capacity building, awareness and sensitisation, scientific exploration, knowledge production and sharing and field piloting, all together set to contribute towards longer term impacts of the project.

Project has made scientific foundation for evidence-based forest management through scientific exploration (Doc 04, 05, 06), capacity building and awareness and site level demonstration (Doc 12, 13, 01, and 02). Biodiversity has been integrated in forest management plans (Doc 04). Projects activities have helped in conceptualising biodiversity and sensitised stakeholders on biodiversity conservation this will have long term impacts. Project has brought important issue towards forest restoration and now many agree towards natural regeneration against plantation of exotic species especially in areas with high natural regeneration potential (Doc 27, 28).
Project has conceptualised invasive species management and forest restoration which will contribute towards long term forest restoration (Doc 09 and communication materials of year 1 and 2).
Project has piloted agroforestry and invasive species biomass management to control invasive species and forest restoration (Doc 18, 31, 32, 01, 02). This piloting will generate income for forest dependent poor while supporting in restoration of degraded forest.

Project has initiated important discussion about biodiversity conservation in managed forest, that is expected to influence future policies to integrate biodiversity in managed forest (Doc 16, 14)

## 4. Project support to the Conventions, Treaties or Agreements

Field level activities and policy level engagement organised during year 3, directly and indirectly contribute multiple MEAs, particularly multiple articles of CDB (primarily article 7 and 8), Aichi Biodiversity targets and objectives of Ramsar convention. Many of year three activities are continuation of year 1 and 2.

**Activities relevant to CBD:**
**Article 7 (a)**. **Identification of component of biodiversity and their monitoring**. Jalthal forest is a biodiversity rich remnant forest but the overall facet of biodiversity has not been well explored and documented. From the year 1, project initiated to identify and document the biodiversity and associated ecosystem services through participatory approaches; engaging both experts and local people and now knowledge products are getting better shape (Doc 5-7). The project has also identified the threats to biodiversity and communicated it to local communities, stakeholders and policy makers from local to national levels (Doc 12, 15).

**Article 8 (c, d, e).** The project has started integrating biodiversity conservation in CF policy and planning process including ecosystem restoration and invasive species control. This will help to enhance biodiversity management across the CF, beyond protected areas (Doc-04, 12, 14). The project has prioritised species for conservation which will help to maintain the population of rare, threatened and locally overexploited species (Doc-08). Conservation activities outside the protected areas will indeed help on providing alternative habitats for wildlife.

**Article 8 (f) Rehabilitate and restore strategies**. The project has conducted activities like plantation, invasive species removal and site management that lead towards the restoration of degraded forest. These activities will support this article of CBD (Doc 01, 02, 09).

**Article 8(h)** 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 site management (Doc-09).

The project activities are aligned with multiple targets of **CBD** strategic targets, mainly **Aichi Biodiversity Targets (ABT)**. Awareness raising and capacity building for biodiversity conservation through local actions in Jalthal serve to the **Target 1** (Doc 01, 02, 22, 23, 28); mainstreaming biodiversity conservation in Nepal's CF process is aligned with **Target 2** (Doc-04, 12, 14); 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-09, 01, 02) and ecosystem restoration (Target 14, Doc 27, 09, 31).

We organised a national seminar on biodiversity in CFs of Nepal (Doc 14). In this connection project leader Dr Naya Sharma had a meeting with Dhananjaya Sharma, Joint secretary and Head of the Biodiversity Division of Ministry of Forest and Environment. He is the focal person of CBD. He could not join the meeting but it was planned in discussion with him.

This project activities 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 02). The wetlands in this area are habitats for breeding as well as migratory birds. Project activities to restore wetlands directly serve to achieve strategic goals particularly Goal 3 target 12 and 13 of the fourth Ramsar strategic plans of 2016-2024[6] (Doc 10, 01, 02).

## 5. Project support to poverty reduction

The project has implemented activities that link biodiversity conservation, forest restoration and poverty reduction of forest dependent poor households. Project has supported women from poor and disadvantaged group of people in their income generation. In year 3, a total of 80 women households started agroforestry in their CFs. They generated cash from sell of the turmeric. Similarly, over 50 women from poor households were supported in goat farming. Some of them have already benefited from it (Doc 18). Some women group are also benefiting from fishery (Doc 02, 01). Similarly, 12 households and three CFUGs have benefited from use/sale of compost, they generated over 150,000 NRs from sale only (Doc 02).. We will have a clearer picture towards to end of the project.

## 6. Consideration of gender equality issues

Gender related differences in terms of income, access to property and leadership are high in Nepal. Women, disadvantaged people and 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 participation Though, we tried to make 50% women participation (Doc 02, 01), only 40% has been secured. We have invited gender experts as facilitators in such training events (Doc 02, 01). We have prioritised poor women while organising income generating activities. Our fishery group, turmeric group and goat keeping group, all with exclusively women members (Doc 18). Women members from 150 households have from these interventions.

Women are given priority during appointing project staff. Both the field officer and local facilitators are female. They have been provided with enabling working environment with safety and security, working ours, capacity building opportunity and regular coaching, backstopping.

## 7. Monitoring and evaluation

- As the project leader, ForestAction Nepal (FAN) conducts regular monitoring and evaluation against the set targets and indicators. We take and adaptive process, project indicators will be closely monitored, and strategies will be prepared for maximum possible achievement. The project manager reports to PI and CoPIs and is responsible to implement the day-to-day activities.
- FAN has project management committee which meets almost every month to plan and discuss the project.
- FAN requests each project leader to present project activities and outcomes. This is an important forum to monitor the project progress.
- The project leader, administrative head of and project manager meet and discuss regularly at FAN to monitor project updates and check if milestones are achieved. The project manager regularly visits the field to conduct and monitor the field activities.

[6] 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

- We regularly monitor and follow up, forest intervention and livelihood related activities and discuss at field office. This has ensured that our intervention lead towards result and reduce the risk. Based on the outcomes and cost incurred we have reduced complete removal of invasive species rather opted to slash it regularly.
- Projects written outputs are important indicators to monitor the progress of the project.
- Most of the indicators are quantitative which can be monitored based on the actual results, for example, number of women participation, area cleared, amount of compost produced, number of event organised etc.

## 8. Lessons learnt

- Our strategies in the field are producing some good results but these are not well supported by national policies. For example, CFUGs and DFO agree not to plant exotic species in forest. Locals further agreed that there was no need for further plantation. However, the national priority, and budget related mandates and incentives encourage DFO and CFUGs so that plantation of exotic species continues to some extent..
- Project site office is run by local and field-based staffs. That has worked well. Our staffs can be engaged with CFUGs on regular basis. Prioritising local staff and running the site office remained effective especially during pandemic and other uncertainties.
- There are some governance lapses on the part of local partner. A regular follow up, support and monitoring help mitigate some of these lapses. During this reporting year, FAN has facilitated to adjust some of their activities to ensure effective implementation and monitoring..
- Integrating different orientations such as restoration of wetlands for biodiversity vs. developing tourism facilities have posed challenges to project roles. Government and private sector is interested in developing wetlands through cemented dams, bridges and visitors facilities which often have trade off with conservation goals.
- Similarly, powerful narratives such as 'Forest for prosperity'' and 'Scientific Forestry' have led to timber centric management. The focus on economic return by increasing harvestof high value sal trees, has often undermined attempts to develop biologically diverse and multipurpose forest.

## 9. Actions taken in response to previous reviews (if applicable)

In general we got a very positive reviews on year 2 report. We tried to address as far as possible to consider their suggestions.

- Reviewer was worried about bird hunting near the wetland restoration site. His/her concern is valid that more activities might destroy habitat and attract hunting. We are organising awareness programs to minimise hunting.
- Reviewer suggested producing pictorial guide of ferns. We will produce a poster next year. Another concern was about abundance of butterflies and birds. We were interested in preparing checklist. We have updated birds report. We will update the bird abundance data with additional survey in summer of 2022.
- We have considered the suggestion about 10 Golden rules of forest restoration (Sacco et al 2011) in our project implementation. We have used this approach including other ecosystem based adaptation approach in our projects. Yes, the concept of framework species is very useful. In this project we have few plantations and we prioritised native, multipurpose tree species during plantation or more importantly avoid plantation in favour of natural regeneration..
- Human wildlife conflict is a major problem in Jalthal. The project has mainly worked with habitat improvement. That is regeneration protection and forest growth in degraded patch, plantation of fodder species and restoration of wetlands. In next stage, we are planning to develop a forest corridor with bigger patch in the northern part to facilitate elephant movement with minimum destruction to the neighbouring communities.

## 10. Other comments on progress not covered elsewhere

Following points not highlighted in the reports are

1. We played an important role against a planned road construction that could have undermined the integrity of Jalthal forest.. The road was proposed for a short term political gain, by local political leaders. A new road was initiated parallel to the existing road which would dissect the forest north-south. Though construction of new road might not deplete the valuable biodiversity, it would make the forest something like green desert. Therefore, we developed and highlighted key arguments against the proposed road and communicated it with diverse stakeholders, wrote popular articles in national media. Now there is a kind of un written agreement not to construct the road through the forest (Doc, 37,30).
2. We have altogether 12 presentations in local to international seminar, these slides are not included in project evidence. Similarly, our activities were featured in National level television and several local media, due to bulky size of evidences and Nepali language we have not included these as evidence.

## 11. Sustainability and legacy

Project has sensitised stakeholders and raised awareness among CFUGs on the ecological importance of the Jalthal forest and threats to its biodiversity. Project has shared the results to wider audience to generate critical mass that can influence policy and planning so that legacy of our interventions lasts longer. As an influence of the project there is increasing resistance against plantation in general and those of on exotic species in particular. Stakeholders agree that the rich forest is threatened and needs actions to address those. This will ensure sustainability of the project interventions.

We have piloted simple, cost effective yet efficient approach of invasive species management. By engaging local people, we have demonstrated the prospects of integrating economic and ecological outcomes through proper design and planning. We believe local people will continue to support and advance these piloting beyond project life.

To made biodiversity conservation effective, we have supported CFUGs in their capacity and CFUGs started integrating biodiversity in their management plans. This will sustain our interventions.

We will publish papers in open access journals. We share our printed materials free; we will share our publication in websites and social media so that they reach out to large audience.

We will follow our exit strategy. We will organise series of small events and finally a sharing cum exit workshop once we complete field activities sometimes during September October 2022.

## 12. Darwin identity

We have adopted following measures to maintain Darwin Initiative (DI) identity in the project

- In all the project communication materials, we have placed Darwin logo, indicating that DI UK has funded the project
- In all workshops and local meetings we have told stakeholders about the funding agency and its implementing partners.
- In projects publications, printed and online, DI UK and the project reference has been mentioned.
- Project activities and awareness raising contents have been posted in the project's Facebook page. As local people are the main target and viewer of the page, we post the content in the Nepali language. The page is popular and working well (over 1.3K follow and likes). Darwin Initiative identity has been maintained in the page as a funding agency. We tag Darwin Defra in each tweet.
- 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 funding of DI.
- At ForestAction we have maintained it as a distinct project.
- Within Nepal this project is very popular due to communication materials (10 news paper article by project team, 6 feature news with project results), so many people know this project as DI UK project.
- We have most of the publications in Nepali language that has also contributed in informing about the donors.

## 13. Impact of COVID-19 on project delivery

Covid-19 Global pandemic impacted the project. Due to the pandemic we could not implement some activities that were season specific and require experts from Kathmandu and abroad. Following were major impact on the project.

- In the beginning, during the first quarter of the reporting year, we could not do much activities due to the nationwide and local lockdown.
- Project leader and manager could not travel to the field during the first quarter of the year.
- RBGE, the UK project partner, could not organise its visit to Nepal, that affected some of our scientific documentation.
- Due to change in mobility some tourism related activities were affected nationwide, that has indirect impact on our tourism related plans.
- Our local field staffs conducted some work even during the pandemic, which helped us to buffer the impacts.
- Illegal felling and hunting increased during the pandemic.
- We remotely supervised staffs during the pandemics.
- Instead of bigger meetings we organised smaller and informal meetings.
- We are working to reduce wildlife hunting, that contributes in reducing future pandemics.

As some of the activities were delayed, we requested DI to extent our projects timeline. Our project was supposed to end in May 2022 but now we have extended time to complete lagged activities.

## 14. Safeguarding

Please tick this box if any safeguarding or human rights violations have occurred during this financial year. ☐

If you have ticked the box, please ensure these are reported to ODA.safeguarding@defra.gov.uk as indicated in the T&Cs.

ForestAction has written policy to administer project staffs which has no tolerance to any form of discrimination based on gender, religion, ethnicity and race. Sexual harassment and any kinds of sexual violence is 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 to and comply with host and funding country's laws to implement the project.

We are committed to conduct work in safe environment. We care about safety and security of our staff and local people working with us. Work inside forest is usually carried out in group so that 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 rainboots (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 will adopt actions to promote natural regeneration during bush cleaning and Mikania removal. We will not introduce any invasive species in the forest and outside; this is particularly relevant while selecting fodder and NTFP species for plantation. Our experiments inside forest will not have short term or long term negative impacts to forest wildlife and dependent rural population.

## 15. Project expenditure

**Table 1: Project expenditure during the reporting period (1 April 2021 – 31 March 2022)**

| Project spend (indicative) since las Annual Report | 2021/22 Grant (£) | 2021/22 Total Darwin Costs (£) | Variance % | Comments (please explain significant variances) |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Staff costs (see below) | [redacted] | [redacted] | -0.011 | |
| Consultancy costs | [redacted] | [redacted] | 0 | |
| Overhead Costs | [redacted] | [redacted] | 0.005 | |
| Travel and subsistence | [redacted] | [redacted] | 0.512 | |
| Operating Costs | [redacted] | [redacted] | 0.430 | |
| Capital items (see below) | | | | |
| Monitoring & Evaluation (M&E) | 0 | 0 | 0 | |
| Others (see below) | [redacted] | [redacted] | 0.161 | |
| **TOTAL** | **689822** | **68865.49** | | |

Highlight any agreed changes to the budget and **fully** explain any variation in expenditure where this is +/- 10% of the budget. Have these changes been discussed with and approved by Darwin?

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

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

project has significant achievement in three areas; scientific exploration for biodiversity account, publication targeting local people and innovation to manage invasive species to restore degraded forest.

1. The project has been notable in building scientific foundation and enhancing our knowledge about biodiversity status of the biodiversity rich but degraded remnant forest. The study carried out by the project has made extra ordinary contribution in floristic research in Nepal. The project has alone documented six tree species to be new to Nepal. In addition to the new trees for Nepal flora the project has substantially enhanced existing biodiversity data of the forest. Earlier two studies have documented less than 200 species of plants, while we have documented over 500 species of plants, demonstrating the significant richness of the forest.
2. We think we have notable achievement in terms of communication materials in Nepali language. We have a dozen of popular news paper articles, four different leaflets and two booklets and two more books are underway. These publications highlight biodiversity significance and threats to forest to sensitise stakeholders and aware local people. Similarly, projects results have gained wider media attentions but only a small fractions of these are included in this report.
3. We have also made a notable achievement in demonstrating the workable mechanism of forest restoration through proper management of land and bio resources. We have piloted agroforestry approach of restoration of degraded land. So far piloting has provided promising result to supress invasive species, enhance natural regeneration and generate income while managing the degraded land.
4. We have also changed the way in which invasive species are being managed (We have published this in Darwin newsletter last year).