

# The Dhanushadham Wildlife Corridor Phase 1 2024-2026

*Dhanusha District, Madhesh Province, south Nepal*

## 1. Introduction

This is an overview of the first phase of a major rewilding project that Pipal Tree will fund and otherwise support between July 2024 and June 2026.

The Dhanushadham Protected Forest (DPF) is the last surviving remnant of the forest that once covered Nepal's southern plains ('the Terai'). This is a migratory route for wild animals although it is currently very exposed and unsafe for both animals and people. The risk of animal-human conflict is both high and extremely dangerous as the wildlife that follows this route includes wild elephants and sloth bears.

Working in partnership with the Nepalese NGO Mithila Wildlife Trust (MWT), social enterprise Lily's Leaves, Nepal's Forestry Department and local stakeholders, we will create a community-managed wildlife corridor that will run from the Chure Hills south along the course of the Baluwa River before turning southwest to connect with the DPF. We will achieve this through rewilding exhausted farmland with stepping stone rapid-growth forest clusters. The land in between will be managed by farmers and women's cooperatives so that it is both profitable and wildlife-friendly.



Our connecting DPF with the Chure by an umbilical cord forest strip that is unique within Nepal is a tantalising prospect and a groundbreaking project that can be replicated elsewhere across the Terai.

## 2. The region and its challenges

We are implementing the project in Dhanusha District which is one of the eight Districts in Madhesh Province, south Nepal. There are seven Provinces in Nepal and Madhesh is the most populous and, arguably, the most neglected. There are huge barriers to social progress in the region based upon gender, ethnicity, historical prejudice, religion and caste, language (Nepali is the first language of only 7% of the population) and lack of citizenship.

The Terai was once covered with forest but most of this was cleared to make way for pasture land. However, this farmland is exhausted and, with rising costs of fertiliser, farming communities are struggling to eke out a living. Rather than the Terai being the national bread basket that it could be, Nepal is now importing agricultural produce from India. Life is so tough in this part of Nepal that men tend to go to India to seek employment as migrant workers, leaving the women to scrape an income as unskilled day labourers. These disempowered communities are very fragile with no reserve capacity when disaster strikes. This came sharply into focus during the COVID lockdowns of 2020/2021 when many people faced starvation.

There are now additional challenges to contend with - climate change and loss of biodiversity – that have come to represent a massive existential threat. Soaring temperatures and the unprecedented failure of the monsoon has resulted in widespread crop failure. The communities seem to lack the resilience to cope. Of course, wildlife is under pressure because of these factors combined with a growing amount of human-wildlife conflict

through population growth and loss of natural habitat. In November 2023, a new specific threat arose for one ungulate when the Nepal government declared the wild boar to be an agricultural menace. This is overstated. In fact, the downturn in agriculture is in large part due to the ineptitude of the Department of Agriculture in its failing to provide farmers with timely support in grants and subsidies. Nevertheless, the ban on killing wild boar has been lifted and farmers are now allowed to 'control' those that strays onto their land. Although not as yet in the 'menace' category, Nilgai ('Blue Bull'), which is Asia's largest antelope, was hunted to extinction in Bangladesh and it risks the same fate in Nepal through misinformation and habitat loss.



### 3. Our partnerships

#### **Mithila Wildlife Trust (MWT)**

MWT was founded in 2013 by Dev Narayan Mandal, a native of Dhanusha District, after he returned from several years of employment with SOS Animal Rescue in Delhi. He was determined to restore the forests and wildlife that he had known in his childhood, restoring the biodiversity that had been lost through intensive agriculture that was entirely geared towards short term profit rather than being sustainable, also for the natural world. Dev's approach was doubly unusual. Firstly, Nepalese wildlife conservation NGOs are invariably associated with national parks where the focus is upon large species such as rhinos, tigers, dolphins and vultures. Dev's view was that the loss of species was just as critical in general rural areas, so he based his NGO within the community. Secondly, his philosophy involved ensuring that conservation and restoration of wildlife went hand-in-hand with community upliftment, including through educational projects. If people feel that their basic needs are being addressed, they will be responsive to environmental messages. That has proven to be the case – not least because MWT's food relief during the 2020 COVID lockdown (in conjunction with Pipal Tree) fed 29,000 people within the Province, many of whom were highly vulnerable and facing starvation.

Pipal Tree has been working alongside MWT since 2020 in these community/education projects in tandem with reforestation/rewilding. Initially, this involved a conventional afforestation/reforestation project involving a 57 hectare site that included a former riverbed. Working with local Community Forest User Groups (CFUGs) and the Department of Forestry, MWT enjoyed a 93% sapling survival rate on land that had been considered totally inhospitable. The survival rate stemmed from meticulous attention to detail, fencing off of plantation sites and some import of soil to fill pits that were dug for the saplings. In December 2021, the partnership launched a follow-on reforestation programme that involved the pioneering use in Nepal of the highly acclaimed 'Miyawaki Method' of rapid reforestation. In a nutshell, this is a more labour intensive approach that creates small, dense forests through:

- Mechanical excavation to a depth of 1.5 metres to place a layer of compost, before replacing the topsoil. Compost is made from a range of ingredients such as straw, manure and Water Hyacinth which is an invasive species (it has excellent water retentive capacity)
- Planting saplings densely – six to nine per square metre – rather than well-spaced as per the conventional approach. This way, saplings seem to provide shelter for one another and grow synergistically. Saplings are from around 50 native species, many of them locally extinct in Dhanusha District. Eighteen of the species are timber-producing and provided free by the Forestry Department. The remainder are fruit and nut producers and must be purchased from private plantations
- Mulching
- Fencing to exclude early grazers

We have demonstrated the efficacy of the Method when used strategically in a number of specific scenarios, See [this link](#). Our success has been all the more remarkable given that we have been operating in the most

inclement weather conditions of high temperatures and drought. Now we are ready to apply our methods to much bigger programmes, including The Dhanushadham Wildlife Corridor programme.

## Lily's Leaves

Pipal Tree has been working with social enterprise Lily's Leaves since helping to establish it in October 2020. Lily's Leaves exists for the benefit of vulnerable women and has trained young women from Madhesh Province who would otherwise have struggled to source training due to linguistic difficulties (not speaking Nepali), lack of confidence (having been brought up in very patriarchal rural communities) and especially through lack of citizenship. Since 2023, training has been increasingly decentralised from Kathmandu to Madhesh Province and the setup of women's cooperatives to derive livelihoods from forest products is a natural extension of this process. Lily's Leaves and MWT have collaborated on joint projects, especially in the fields of education and urban reforestation, setting up Kathmandu valley's first Miyawaki project in July 2023.

## 4. Strategy

The operational area is effectively a 10km long strip that runs from the Shivalik (Chure) hills southwards along the course of the Baluwa River before turning southwest to cross 2km of farmland before reaching the Dhanushadham Protected Forest. This is already a migration route for a range of animals including ungulates, wild elephants, sloth bears and cat species. However, it is clearly very exposed, particularly in the southwestern element.

Our strategy is to create a stepping-stone type of wildlife corridor in the southwestern section by purchasing and rewilding 13 landsites using the rapid-growth Miyawaki Method of reforestation (we have already created two of these in the target area in a pilot phase) with associated new water holes and restored wetlands. The development and sustainable management of the remainder of the land area, which remains in private ownership, depends upon our securing the goodwill of farmers and new women's cooperatives. We will encourage the development of agroforestry and alternative livelihoods, including from ecotourism.

In respect of ecotourism, the area will hold considerable appeal as rewilding projects are new to Nepal and the southwestern section is being framed as a 'Gurkha Memorial Forest' recognising the illustrious (and continued) service of the hundreds of thousands of Nepalese soldiers in the British and Indian armies since 1815, giving the forest considerable national kudos. We foresee the area being attractive for safari-type holidays (similar to those conducted at the Knepp estate in the UK – see below) geared towards discerning visitors who are interested more in rewilding than in spotting tigers. There will be abundant inspiration for environmental education of children and students at schools and colleges, of the general public and for national and international tourists.

Over the course of the project we will:

- Plant 11 new Miyawaki forests comprising an estimated 56,250 trees from 37 native species, including species that have become locally extinct
- Supply farmers with an estimated 5,000 saplings to plant on their own land alongside seeds and seedlings for new crops that are not favoured by wildlife and that are hardier in the event of drought or floods
- Create new ponds, ideally one for each forest, that will provide watering holes and a source of water in the event of wildfires
- Educate farmers and other stakeholders on how to coexist with nature to mutual benefit (e.g. from ecotourism) through workshops and visits to successful project sites elsewhere in south Nepal. These will include ones being set up by MWT in conjunction with the Zoological Society of London (ZSL) as part of the Darwin Initiative. See [this link](#).
- Develop and support new cooperatives for women that will derive livelihoods from agroforestry (e.g. essential oils and mushroom cultivation/harvesting). This will be encouraged through offering microloans.
- Reach out to schools, colleges, the general public, NGOs and government bodies on the merits of conservation and community-managed rewilding. In schools, we will identify suitable candidates who

may wish to become involved as young rangers/guides in future ecotourism initiatives that will offer additional sustainability to the programme.

Pipal Tree will provide:

- Overall project coordination
- Financial control
- Mentoring and capacity building, including through introductions of potential partners to implementers
- Communications and reporting, including to donors, and some national media relations
- Monitoring and evaluation, including through project visits
- Fundraising.

MWT will:

- Be the lead implementing partner for the above objectives and be the main point of contact for Pipal Tree
- Manage the project finances nationally
- Provide local project coordination with all stakeholders, including the community, the Divisional Forestry Office and local government
- Ensure that the project complies with governmental regulations and Social Welfare Council expectations
- Collect data for educational and research purposes, in association with schools, colleges and universities
- Be responsible for local and national media relations.

Lily's Leaves will:

- Provide close support to women's cooperatives
- Identify markets for products both nationally and internationally
- Operate a microloan facility for women's cooperatives
- Support the development of ecotourism plans.

## 5. Risk analysis

Risk	Impact	Probability	Mitigation
Wildfires – <i>these are an increasing risk worldwide, including in Nepal.</i>	High – <i>loss of habitat</i>	Low	By planting forests in a 'stepping-stone' arrangement, there will be fire breaks. We will incorporate watering holes to improve access to water for both wildlife and to help mitigate wildfires.
Lack of rainfall and high temperatures – <i>Nepal's once predictable weather pattern, including monsoon rains, is changing quickly.</i>	Moderate – <i>this will make our seasonal planting less predictable</i>	High	We will plant saplings when the conditions are appropriate. It just means that we cannot predict planting phases so readily as was once the case. We will irrigate artificially, when needed. New waterholes will provide a source for artificial irrigation of adjacent forests.
Failure to acquire landsites at appropriate price – <i>land may not be immediately available and prices can be inflated if landowners are aware of our needs.</i>	Moderate – <i>we may fail to purchase land within budget. This will be another factor to consider with the timetable for planting saplings.</i>	Moderate	We will remain flexible about choice of landsites and discreet about our plans. We may need to raise additional funds. Land purchases will be timed according to what comes available and best price rather than a rigid timetable.



Risk	Impact	Probability	Mitigation
Felling of trees/change of land purpose – <i>this can happen at sites not owned by our partner NGO.</i>	Low – <i>farmers are unlikely to fell valuable saplings before maturity.</i>	Low	Our partner will own the land for the stepping stone plantations. We will build long term relationships and commitments with farmers.
Failure to meet Big Give and other fundraising targets – <i>we rely upon public generosity and institutional support.</i>	Low – <i>failure to meet funding commitment in short term</i>	Low	We are very experienced in Big Give appeals. If we fail to meet targets we will draw upon additional income streams, most probably from high net worth philanthropists. In extremis, we also have the option of making up any funding shortfall through participation in a third Big Give Green Match Fund in April 2026.

## 6. Opportunities

The challenges we face through the Climate Crisis and loss of biodiversity are, needless to write, huge but our small charity sees some major new opportunities:

- We are not aware of any other rewilding projects having been conducted in Nepal. It seems that the Terai is a perfect context for such activities, namely exhausted, economically unviable, farmland being restored to its original forest, developing alternative incomes (including from ecotourism) where farming had ceased to be economically viable. The [Knepp Estate rewilding project](#) in West Sussex, England, is a perfect example of how this can be made to work. This project could be a model for others in Nepal to replicate and we would encourage this through our contacts in the national media (especially through the highly acclaimed [Nepali Times](#)).
- In 2022, The Big Give, which acts as a platform for matched giving charitable campaigns, launched [the Green Match Fund](#) as a new annual appeal for environmental projects. This offers the opportunity to raise up to £200,000 and an organisation’s profile nationally. For the April 2024 Appeal, Pipal Tree’s target is £100,000. This presents donors with the possibility of making their donation double in value so that it becomes an investment rather than a grant. Pipal Tree is very experienced in using Big Give appeals, successfully raising £100,000 in the last Big Give Christmas Challenge.
- From June 2024 Pipal Tree will be extending its fundraising reach to continental Europe with a particular focus on The Netherlands and the German-speaking countries. We expect that major new income streams will be identified with the support of the Austria-based [TripleMinds](#).

## 7. Outline Budget

See next page

## 8. Workplan

Available upon request

## 9. Monitoring, Evaluation and Learning

The monitoring and evaluation will be based upon a logical framework of outcomes, objectives, outputs and activities. However, it has to be clearly stated at the outset that it may be difficult to follow a workplan strictly. The reason being, as stated previously, that climate change is having such a sudden impact on weather patterns causing unpredictability, soaring temperatures and lack of rainfall. Also, land purchase is dependent upon land coming available at the right time and at a good price. We have to stay flexible.

Internal evaluation and monitoring in Nepal will be conducted by the Executive Chairman of MWT, Dev Narayan Mandal, supported by his Board, in coordination with Lily Katuwal, the Founder of Lily’s Leaves. This will be complemented by Philip Holmes, CEO of Pipal Tree, supported by his Board of Trustees, including through 2-3 annual project visits to Nepal.

The project will be registered with the Social Welfare Council of Nepal, the governmental body that monitors and evaluates the performance of NGOs and social enterprises. It is the official external evaluator. It will base its evaluation upon inputs from all the key stakeholders.

## 10. Long term Vision

We foresee the following potential long-term developments:

- Pipal Tree will work to establish a fund that will allow other landsites to be purchased and developed using the Miyawaki Method on an opportunistic basis. Ideally, if a piece of land within the corridor area suddenly comes on the market at a good price, we should be able to secure that in MWT's name for future generations. There is no reason why the 13 stepping-stone forests should not double or triple in number over the coming 25 years.
- We will work hard to document our progress, also pictorially, so that we can present our success longitudinally to central, provincial and local government bodies, schools/colleges, other NGOs and community based organisations and to visitors. We will showcase it through sites such as [Restor](#) and record data scientifically so that we can share this in academia.
- MWT will devise an ecotourism strategy that will attract funds and interest nationally and internationally, encouraging visitors whose presence will not disturb the new-found balance of nature. We foresee being able to identify and support private tour companies who can organise safari-type and strictly controlled camping/trekking opportunities. The thrust of the ecotourism will be less about spotting large animals (as is the case in the national parks) and more about demonstrating how rewilding has transformed the prospects for nature and host communities.

## 11. Conclusion

We are excited to be once again pioneering a new process in Nepal, namely rewilding. This will involve drawing upon, and combining, experience we have gained in reforestation, community support, female empowerment and education. We are confident that we can restore the balance of nature in this part of Dhanusha District and, ultimately, into other Terai Districts.



Lt Col (Retd) Philip Holmes OBE  
Founder/CEO Pipal Tree  
23<sup>rd</sup> April 2024

<b>The Dhanushadham Wildlife Corridor 2024 - 2026 summary budget</b>			
	<b>2024-2025</b>	<b>2025-2026</b>	<b>Total</b>
<b>Outcome 1 - Rewilding and land restoration (MWT)</b>			
Purchase and reforestation of 11 stepping stone landsites	£123,000	£102,500	£225,500
Pond dredging and wetland restoration	£9,000	£9,000	£18,000
<b>Outcome 2 - Stakeholder engagement through agroforestry and sensitisation (MWT)</b>			
Agroforestry workshops and training	£4,300	£4,300	£8,600
Seedling supply and support	£3,000	£2,000	£5,000
Promotion of wildlife deterrent native cash crops	£6,000	£9,000	£15,000
Human-wildlife conflict mitigation training	£1,800	£2,700	£4,500
Educational visits by farmers to Makwanpur/Parsa/Nawalparasi	£3,000	£3,000	£6,000
<b>Outcome 3 - Livelihood development for poorest people (Lily's Leaves)</b>			
Employment skills training	£12,900	£12,900	£25,800
Formation and support to three female-led cooperates	£1,900	£1,900	£3,800
Microloan funding for cooperatives	£10,000	£20,000	£30,000
Banking education and liaison visits	£1,900	£1,900	£3,800
<b>Outcome 4 - Conservation education (MWT)</b>			
Curriculum development	£4,500		£4,500
Conservation classes in schools and colleges	£2,000	£2,000	£4,000
Field visits and practicals for wildlife clubs and societies	£2,300	£2,300	£4,600
<b>Operating costs</b>			
<b>Salaries</b>			
Project Director	£5,700	£6,100	£11,800
Project Financial Controller	£3,700	£4,000	£7,700
Project Support Officer MWT	£2,400	£2,600	£5,000
Project Support Officer Lily's Leaves	£2,400	£2,600	£5,000
National travel MWT	£1,500	£1,500	£3,000
Field travel MWT	£1,500	£1,500	£3,000
Field travel Lily's Leaves	£4,000	£4,000	£8,000
Other field expenses MWT	£3,000	£3,000	£6,000
Other field expenses Lily's Leaves	£2,000	£2,000	£4,000
<b>Monitoring and evaluation</b>			
Baseline, midline and endline surveys	£4,500	£2,300	£6,800
Stakeholder visits	£2,000	£1,600	£3,600
External monitoring and evaluation	£2,000	£1,000	£3,000
MWT overheads @ 10%	£17,700	£15,500	£33,200
Lily's Leaves overheads @ 10%	£3,500	£4,500	£8,000
Pipal Tree support, monitoring, fundraising and communications	£24,200	£22,600	£46,800
Cash expenditure	£265,700	£248,300	£514,000
Other input - saplings donated by Dept of Forestry	£14,000	£14,000	£28,000
<b>Total expenditure</b>	<b>£279,700</b>	<b>£262,300</b>	<b>£542,000</b>
<b>Income</b>			
Big Give Green Match Fund appeal April 2024	£75,000		£75,000
Big Give Green Match Fund appeal April 2025		£150,000	£150,000
Other public/Trust fundraising	£190,700	£98,300	£289,000
<b>Total income</b>	<b>£265,700</b>	<b>£248,300</b>	<b>£514,000</b>