



## Pipal Tree/Lily's Leaves/Mithila Wildlife Trust forest programme 2023 - 2027

### The Dhanusha Bird Park Project

#### 1. Introduction

Pipal Tree's open-ended Mission is:

*"We empower the most disadvantaged people in Nepal towards living productive, fulfilling, and healthy lives through improving education, offering training opportunities and by the restoration of their natural environment. We focus primarily on women and girls, the lowest castes, marginalised ethnic groups, and disabled people."*

We operate mainly in Madhesh Province which is one of seven Provinces in Nepal, comprising eight of the country's 77 Districts. Despite being Nepal's most populous Province, it has been historically neglected with a range of factors feeding into grinding poverty, marginalisation/exclusion and a lack of opportunity for social or economic progress.

In general, we take a holistic, community-based approach to our projects with, for example, our education projects being conducted in the same areas where we are implementing reforestation and rewilding activities. We implement our projects through two local organisations: The Janakpur-based NGO The Mithila Wildlife Trust (MWT) and the Kathmandu-based social enterprise "Lily's Leaves". These two organisations coordinate very closely on the ground with, for example, Lily's Leaves providing training and employment to young women from Madhesh Province alongside distributing school rucksacks and dignity pads (reusable sanitary pads) made at Lily's Leaves to schools in the same area.

This document outlines our plan for a rapid-growth reforestation project at Dhanushadham, Dhanusha District. It is one of three reforestation projects that are running concurrently. This project represents a major contribution towards our fight against climate change.

The plan has the following elements:

- Reforestation and carbon sequestration
- Education and outreach to schools
- Raising awareness about the environment
- Public art – mosaics of birds



Siting a glass mosaic at the bird park

## 2. Dhanushadham and its community



A village woman at Dhanushadham

Dhanushadham is a very poor rural community where villagers live in little more than thatched-roof, mud-walled huts. They eke out an existence with women working as day-labourers in the fields, while their husbands may be migrant workers in India. Those who do own land struggle to earn a living from agriculture, since the land is over-farmed and exhausted. Corrupt government bodies that should be in support of farmers fail to provide seeds and fertilisers. This, together with changing climate patterns, means that the community is in a state of chronic misery. This economic decline is against a backdrop of social marginalisation and

exclusion, fuelled by negative factors such as poor education, the dowry system, gender and religious discrimination and a lack of citizenship preventing access to services and opportunities.

This hopeless situation explains why we are operating in this area, doing what we can for social upliftment, including through enhancing educational provision and restoration of natural resources (forests) to supplement incomes and, in due course, provide opportunities for ecotourism.

## 3. Reforestation using the Miyawaki Method

The Miyawaki rapid-growth reforestation method, devised by the late Professor Miyawaki, is designed primarily for the urban environment where only a comparatively small amount of open space might be available to reforest. An area the size of a tennis court is considered the minimum spaced required for a plantation. The technique involves excavating to a depth of 1.5m, placing a thick layer of compost/manure/organic material, replacing the topsoil and then planting saplings densely i.e. nine per m<sup>2</sup>. This latter, counter-intuitive, approach appears to work very effectively with saplings supporting one another synergistically. This is probably not only because of the fertiliser but also the loosening of the soil that allows easy penetration of the root systems. It is stated that a Miyawaki plantation grows ten times faster, is twenty times more biodiverse and thirty times denser than a conventional forest plantation. Within the urban environment there are additional benefits, including absorption of pollutants, a cooling effect and the positive impact on mental health of urban dwellers. It should be noted that the labour involved means that there is a downside of the method being up to ten times more expensive than a conventional forest, but in the time of climate change, a rapid response is of paramount importance.

We have been pioneering the method in Nepal since December 2021 when we began planting a site at a rural location near Dhanushadham. We still see a place for the Miyawaki Method in rural areas where there is a specific purpose and reason for creating a rapid-growth forest. In this case, there were three reasons:

- To create a “bird park” forest that would provide a sanctuary for endangered birds and a hub for conservation activities within the broader community area.
- To fuel community upliftment through future ecotourism linked to the park, including for visitors who wish to visit the project and see its outcomes that include mosaics that are unique to Nepal. Ultimately, we aim to have 100 bird mosaics at the park.
- To provide a demonstration site so that the approach can be showcased and replicated at other sites within Nepal.

#### 4. Activities at the Dhanusha Bird Park

The area chosen for the project was an over-grazed piece of community land adjacent to a small river at Dhanushadham. The plan is to re-forest this land in phases, as funds become available through application to grant-making Trusts. The Department of Forestry is providing free saplings from 19 timber-producing species while we purchase approximately sixty other native species (including fruit and nut producers) from garden centres. Our responsibility is the land preparation, planting and subsequent maintenance and irrigation of the site. As an added potential tourist attraction, we have been siting glass mosaics of birds on plinths at the boundary of the plantation.

To date, we have planted 36,980 saplings in three phases, covering an area of one hectare. Thirteen mosaics, made by Philip Holmes at his studio in the UK, have been placed on brick pillars around the perimeter. Already, endangered birds such as Black Bittern have been spotted at the site and even a family of (endangered) Bengal Foxes has taken up residence.

The community has been very fully engaged with the project, starting with discussions and securing initial agreement to fencing off land that had been open to all for grazing. Households, schools, students and community leaders were all involved in physically planting the saplings. An area of the site was set aside on behalf of each of the eight District Forest Offices that lie within Madhesh Province, with each DFO being responsible for providing saplings for “their” designated area. This has ensured that DFOs have become directly interested and involved in progress. We have also set aside a strip of land as a “control” area, planting this conventionally. Already, the Miyawaki plantation is towering over the conventional plantation (see images on next page).

The project has received prominent coverage in Nepal’s leading English language paper, the Nepali Times. That exposure has led to enquiries and visits from across Nepal. MWT is offering free consultancy to any organisation that wishes to replicate the project. Lily’s Leaves will be planting the first Miyawaki plantation in Kathmandu valley this monsoon season.



November 2021



December 2021: Students planting saplings



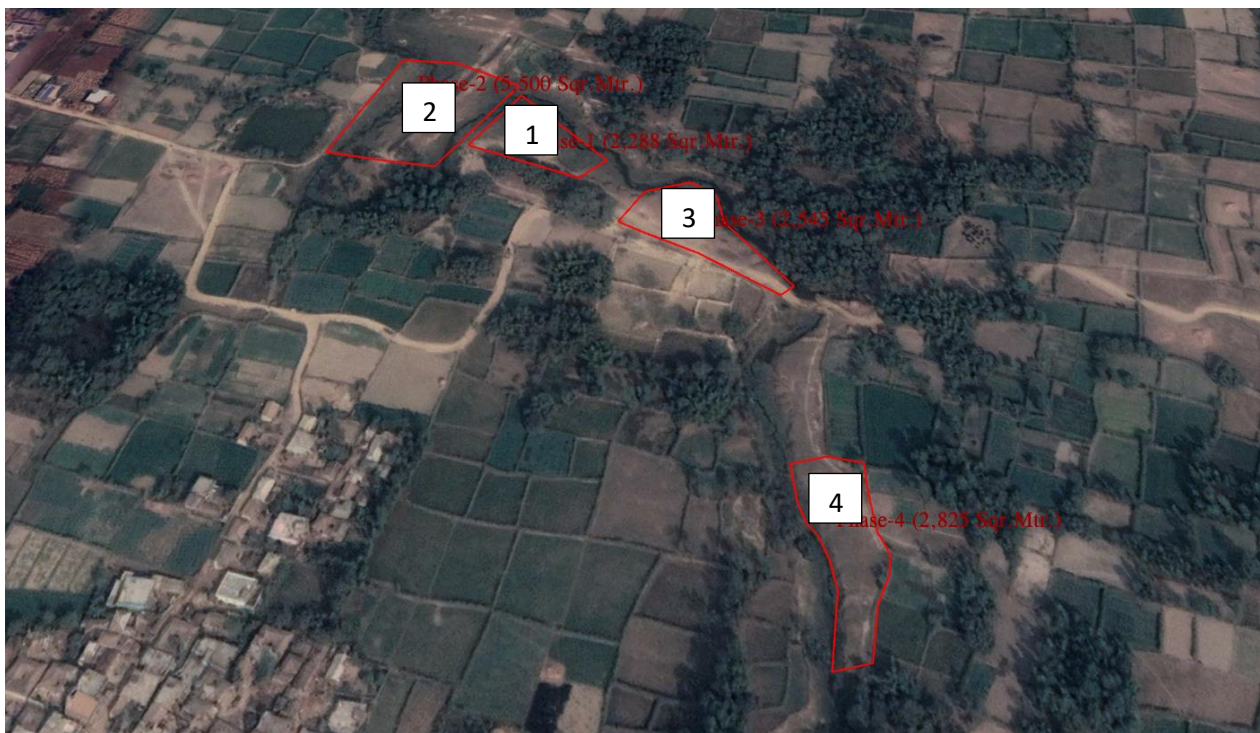
June 2022



November 2022. Left: A teak sapling in the control area. Right: A teak sapling in the Miyawaki section.

5. The next phase

Ultimately, we will expand the Bird Park on public land for a distance of 4km along the riverbank. The next phase (Phase 4) will cover an area of 2,825m<sup>2</sup> at a cost of £24,622 (see Google Earth overview below). Note that there is a gap between Phases 3 and 4 land areas, this being encroached land that is being reclaimed by the Municipality. Once this area has been resolved, we can reforest that also to create a continuous strip.



We have already raised £13,000 of this amount from applications to Trusts. Would you please be able to help us with a grant towards the extension? Please note that if we raise surplus funds, these will be carried forward as an investment in the next phase. Each phase costs approximately £25,000.

Thank you so much.

Philip Holmes OBE MSc  
Lt Col (retd)  
Founder/CEO  
6<sup>th</sup> August 2023



**Mosaic birds at the site:**



Student visitors

**Feathered and furry visitors:**



Feb 2023: A Great Egret



Feb 2023: Asian Woolly-Necked Storks, seen in the area for the first time.



Feb 2023: A family of Black-Headed Ibis, now resident at the site.



Mar 2023: A Bengal Fox cub. This is an endangered species that has taken up residence and is breeding at the site.



Feb 2023: A Jungle Cat enjoying the sunshine.