

# NIKUNJ JAMBU

MEL Specialist | Spatial Data Analyst | Conservation Biologist

Mobile number. +91 9150791698

Email. [jambu.nikunj@gmail.com](mailto:jambu.nikunj@gmail.com)

Web: <https://nikunjambu.info/> (for a more interactive experience)

## In a Snapshot

For as long as I can remember, I just wanted to be left alone to marvel at nature. I still pretty much want to do just that. As an adult, I realized that unravelling the mysteries of the natural world was my calling. Through all the education, training, and certifications I undertook, all I am doing is merely trying varied methods to explain, document, and preserve what we humans perceive as the natural world.

My biggest success is that for a career, I aim to achieve nothing more, nothing less.

## Skills

### Field Ecology & Conservation

Wildlife Monitoring | Species Surveys | Habitat Assessment | Protected Area Research | Conservation Planning

### Monitoring, Evaluation & Learning (MEL)

Logframe & Theory of Change | Indicator Design | Impact Assessment | Data Collection Tools | Participatory Monitoring

### Data Systems & Automation

Data Pipelines | Workflow Automation | API Integration | Dashboard Development | Survey123 & Kobo Toolbox

### Spatial Data & GIS

ArcGIS | QGIS | Cartography | Remote Sensing | Spatial Data Modeling | Geospatial Analysis | Web Mapping | ERDAS

### Programming & Analysis

R | Python (basic) | Ecological Statistics | Data Visualization | PostgreSQL | PostGIS

### Tools & Technical Platforms

ArcGIS Online | ArcGIS Experience Builder | RMarkdown | Google Earth Engine (Basic) | Git (basic)

### Other Skills

Technical Training | Report Writing | Cross-disciplinary Collaboration | Capacity Building | Proposal Inputs

## Current Engagement

As an MEL Officer at **The Nature Conservancy**, my role involves the following:

- Develop and implement Monitoring, Evaluation, and Learning (MEL) frameworks for projects focused on **community conservation**, **agroforestry**, and **human-elephant conflict mitigation**
- Integrate projects' Theory of Change and equity considerations into the MEL frameworks
- Translate field and spatial MEL data into clear, actionable insights that support project teams and stakeholder communication
- Design custom survey forms (by using ArcGIS Survey123 and XLSForm tools) to enable scalable, structured MEL data collection
- Integrate biodiversity monitoring, spatial analysis, and local insights into MEL systems to inform adaptive strategies
- Manage spatial data workflows and build ArcGIS dashboards to track and communicate project outcomes across multiple geographies

- Spearhead the project as Technical Lead on indigenising a global [Nature-Based Solutions \(NbS\)](#) portal, to adapt it to Indian ecological and social contexts

## My Work Experience

### 1. Senior Project Manager (Ecologist) at Foundation for Ecological Security (FES)

September 2020–March 2023

At FES, my work focussed on two pivotal projects, namely Integrated Forest Management System (IFMT) and Indian Biodiversity Information System (IBIS):

- **IFMT**

Indian Forest Management Tool is an app that FES developed to provide **technical expertise and assistance to Forest departments of various Indian states** in making the Working Plan of Territorial Forest Management.

My work included training. I personally **trained over 2500 forest staff** in the aspects of data collection and principles of the working plan. As part of **scaling operations**, IFMT, which got adapted into VanApp, is today used by more than 7 states. VanApp is soon to be made mandatory by the Ministry of Environment, Forests, and Climate Change (MoEFCC). Here is a [detailed write-up](#) of on the IFMT app and its significance.

- **IBIS**

IBIS is a **biodiversity portal** that FES developed in 2009; it provides information regarding flora and fauna of any region. I led a team in an initiative to revamp the portal and bring it to the current standards of data, citizen sciences, and technology. **Built on a GIS engine, IBIS now provides information** on all floral and faunal groups. The new portal is built on international data standards and taxonomy.

Beyond the above two projects, while working with FES, I used the Species Distribution Modelling (SDM) tool to also conceptualize an **eco-restoration tool**, named **Right Tree Right Place**, which aims to help local communities in their efforts to promote native plant species.

### 2. Junior Research Biologist (GIS Analyst) at Salim Ali Centre for Ornithology and Natural History (SACON)

December 2017–December 2019

I worked on a project titled *"Assessment of Status, Distribution and Threats to the Population of Sarus Crane (Grus Antigone) in Gujarat, India"*.

- **Analysed GIS-based long-term data** on land use and land cover changes in Sarus Crane habitats across Gujarat
- Processed satellite imagery to **detect landscape-level changes** over six decades
- Conducted **ground-truthing efforts** and integration of field data with spatial layers

### 3. Project Biologist at Wildlife Institute of India (WII)

June 2017–December 2017

I worked on a project titled *"Black-Necked Crane Conservation & eFlow Assessment, Nyamjang Chu River (Zemithang Valley, Arunachal Pradesh)"*.

- Conducted field research in the Nyamjang Chhu river basin near **Zemithang** village, Tawang district, a key wintering site for the **Black-Necked Crane** (*Grus nigricollis*)
- **Surveyed crane habitat** in dry riverbeds, stream edges, and riparian shrub zones, especially those dominated by Hippophae spp., in which cranes forage and roost
- **Recorded hydrological data** to help establish habitat suitability criteria related to water depth and flow velocity

- Supported the **assessment of potential ecological impacts** from a proposed 780 MW **hydroelectric project** by Bhilwara Energy Ltd, which could have submerged a large portion of the crane's habitat
- Gathered findings from the study to suggest conservation recommendations, leading to the **scrapping of the dam project** subsequently, helping **protect this critical habitat**
- Gained valuable field experience in **high-altitude Himalayan riverine ecosystems** and species-habitat assessment

#### 4. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

December 2016–June 2017

The grant was part of the project titled "*Conservation and Sustainable Management of Coastal and Marine Protected Areas (CMPA) in India*".

- Conducted an ecological study named "*Assessing bird-habitat linkages at Khijadiya Wildlife Sanctuary and Gosabara Wetland, key biodiversity hotspots in Gujarat*"
- Surveyed avian diversity, **documented species-specific habitat dependencies**, and identified critical conservation zones to inform wetland management strategies
- **Analyzed ecological data** to support evidence-based recommendations for **protecting threatened species and their ecosystems**
- Led the GIZ initiative on coastal and marine conservation by **delivering actionable insights for sustainable habitat preservation**

#### 5. Rufford Small Grants

July 2015–July 2016

This grant was part of the project titled "*Avifaunal Conservation Through Research, Awareness and Generating Alternative Livelihood Options in Purna Wildlife Sanctuary, Gujarat*". It had three parallel objectives:

##### Research

- Estimate **avifaunal diversity**
- **Assess the socioeconomic condition** of the indigenous farming tribes, especially post droughts
- **Gauge people's awareness levels** and ascertain extent of hunting

##### Awareness

- Conduct **nature workshops** to sensitize school children, teachers and parents
- Lead nature trails to **reshape perspectives** of villagers about avifauna

##### Generate Alternative Livelihoods

- Promote general awareness about Purna as a **bird sanctuary**
- **Coordinate with government** departments to spread awareness
- **Train local youth** as bird guides, fostering a sense of stewardship and ownership
- **Explore home stays and ecotourism** as a revenue generating alternative

#### 6. Research Biologist Wildlife Institute of India (WII)

September 2013–January 2015

I worked on a project titled "*Monitoring Tigers, Co-Predators, Prey and Their Habitat (All India Tiger Estimation)*".

- Conducted field research in **critical tiger landscapes**, including Ranthambore (Rajasthan), Manas Tiger Reserve (Assam), and Kaziranga National Park (Assam)
- Collated and **analysed ecological data on tigers**, co-predators, prey populations, and habitat quality by using **camera traps, line transects, sign surveys**, and vegetation sampling
- Contributed to **national tiger population assessments**, supporting conservation strategies under **India's Tiger Monitoring Program**

- Gained hands-on experience in **wildlife monitoring, field data collection, and ecological survey** techniques in diverse forest ecosystems

## 7. Independent Project Funded by Nature Club, Surat

October 2012–June 2013

The grant was part of the project titled "*Documentation of Amphibian, Reptilian and Avian Diversity of Purna Wildlife Sanctuary, Dang District, Gujarat*".

- Conducted **biodiversity surveys** using point transects, fixed-point counts (birds), and visual encounter surveys (VES) to assess species richness
- Performed extensive **nocturnal surveys for amphibians and reptiles**, contributing to baseline data in an understudied forest ecosystem
- Submitted findings to Nature Club, Surat and the Gujarat Forest Department, **supporting conservation planning**
- Data utilized for **M.Sc. Dissertation** (Dept. of Zoology, MSU Vadodara), enhancing academic and field research integration.

## 8. Research Assistant at Indian Institute of Remote Sensing (IIRS)

May 2009–July 2010

I was part of the project titled "*Biodiversity Characterisation at landscape level in North-West India and Lakshadweep Islands by using Satellite Remote Sensing and Geographic Information System*".

- **Conducted field surveys** across protected areas in Gujarat to collect data on vegetation, soil, and land use/land cover for satellite image validation
- Laid out standardized vegetation plots (31.62 × 31.62 m, 10 × 10 m, and 1 × 1 m) as per **National Remote Sensing Centre protocols**
- Collected and identified plant specimens, contributing to **herbarium preparation** and species documentation
- Gained valuable experience in **integrating ground-based biodiversity data with remote sensing** outputs for landscape-level ecological assessment

## Special Achievements

### Young Ecologist Talk and Interact (YETI, 2018)

YETI, a national conference, happens annually all over India. More than 400 students and researchers attended YETI Baroda 2018. As one among the six core organizers, I carried out these functions:

- Raised funds
- Oversaw abstracts selection
- Managed the website, event logistics, and media
- Managed on-site running of the actual event

### Dangs Bird Festival (2016, 2017, and 2018)

The Dangs Bird Festival (DBS) was my brainchild, from concept to event management and completion.

As I envisioned it, the festival was a means to promote birding and eco-tourism in Purna WLS in Dangs, Gujarat. It also succeeded in its aim of **raising awareness** about the larger goal of **avifaunal conservation** in the Dangs. I worked in coordination with the **Gujarat Forest Department** to make DBF a success.

The festival attracted over 60 guests and volunteers from all over the country. The three-day event comprised bird watching, lectures, documentary screening, camp fire, and an introduction to the Dangi tribal culture and way of life.

## Education

### Master of Science

#### Masters in Zoology, 2013

Division of Avian Biology and Wildlife Biology, Department of Zoology,  
The Maharaja Sayajirao University (MSU) of Baroda, Vadodara, Gujarat  
GPA: 6.68 (66.8%)

### Bachelor of Science

#### Graduation in Zoology (Honors), 2011

Department of Zoology, MSU of Baroda, Vadodara, Gujarat

### Bachelor of Science

#### Graduation in Botany, 2009

Department of Botany, MSU of Baroda, Vadodara, Gujarat

## Certifications in Data & Analytics

Click the following links to view key certifications that back my data management skills:

- [Career Essentials in Data Analysis by Microsoft and LinkedIn](#)
- [15 Days of SQL: The Complete SQL Masterclass 2025](#)
- [Data Analytics in R](#)
- [A Comprehensive Guide to PostGIS and Spatial Queries](#)
- [Python in 5 Weeks](#)
- [Data Science Essentials](#)
- [Data Science With SQL and Tableau](#)
- [Data Visualization in Tableau](#)
- [Project Management Foundations](#)

## Important Links

- [Link](#) to research gate profile
- [Link](#) to citizen science initiative work
- [Link](#) to LinkedIn profile

## Avocations

### National Cadet Corps (NCC) Air Wing

I attended 10 official camps, during my BSc years, including:

- 2 National Integration Camps (Tirupati (Andhra Pradesh) and Aizawl (Mizoram))
- 1 All India Vayu Sainik Camp (Bangalore)
- 3 Combined Annual Training Camps (Air Wing and Army Wing)
- 15 hours of flying sorties on microlight two-seater aircrafts
- Competitions won:
  - Silver medal in Skeet Shooting
  - Several medals as part of team events

## Personal Details

<b>Date of Birth</b>	July 8, 1987
<b>Languages</b>	English, Hindi, and Gujarati, Bengal I have a working knowledge of Assamese and Punjabi too.
<b>Present Address</b>	B3, FOMRA Celebration Apartment, Yadaval Street Kil Ayanambakkam, Chennai, Tamil Nadu PIN 600095

## Declaration

All facts and information I stated here are authentic. Upon demand, I can produce originals and copies of every certificate or testimonials, if and when required.

Nikunj Jambu  
July 2025, Chennai