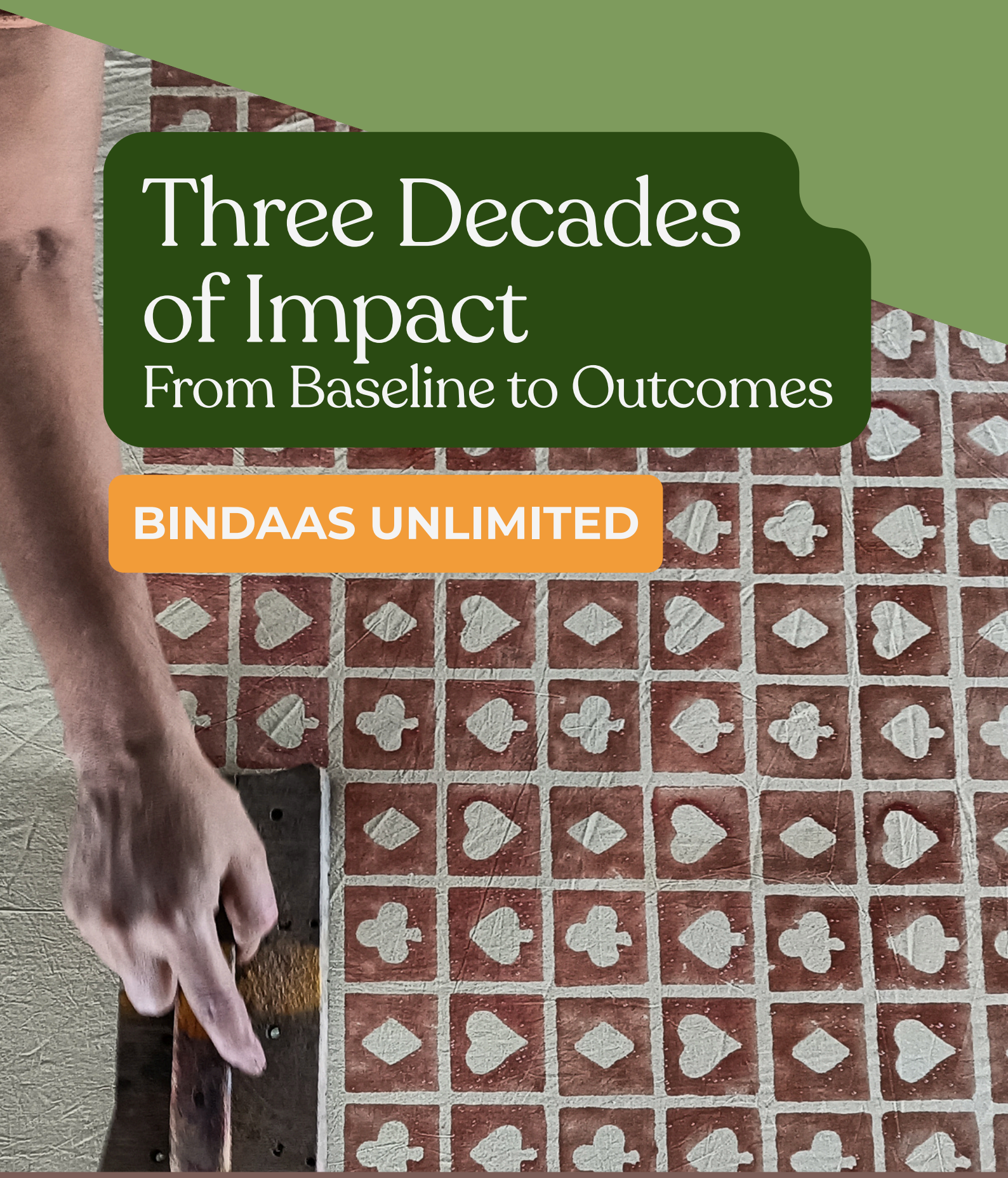


Three Decades of Impact
From Baseline to Outcomes

BINDAAS UNLIMITED

ASSESSMENT BY

THIRD SOIL

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From the Founder's Desk



Designs, techniques, scale, and forms of production tell one part of this story. Our social and human relationships tell another. Over the years, we have learnt from each other and grown together.

After working with a rural community for over thirty years, our lives and ways of working have become intertwined. This feels like the right time to step back and look at our shared journey as a case study—to reflect on how far we have come, how closely we have stayed aligned with our ideals, and what has been possible to achieve.

What gives me the greatest happiness is the trust, joy, and sense of equality that define these relationships. Together, we have developed new techniques and reworked older ones. Our Bindaas prints remain playful and distinctive despite frequent imitations. We have faced challenges along the way, yet we have continued to adapt and move forward.

As we look ahead, I welcome Third Soil's effort to help us better understand and measure the depth of our impact.

Meeta Mastani
Founder – Bindaas Unlimited
March 2026



Introduction - Bindaas Unlimited

At Bindaas Unlimited, we began in 1993 working with natural dyeing and hand printing alongside artisan communities in Rajasthan, particularly through Chaubundi Studio in Kaladera, while also collaborating with other craft groups such as the Caterpillar Sisters, West Bengal and the Patwa community in Rajasthan.

Our handprinted textiles are worn and collected in many parts of the world and have been showcased at venues including the International Folk Art Market, Santa Fe, *The Fabric of India* exhibition at the Victoria and Albert Museum, London, the Rijksmuseum, Amsterdam, and the Zuiderzee Museum in Enkhuizen. Collaborations with designers, artists, and partners from different countries have shaped this journey and reflect a design approach rooted in humour, experimentation, and craft traditions.

Alongside the studio, we run an eponymous charitable trust that supports initiatives connected to rural craft communities through workshops, training programmes, and partnerships with several social organisations. This report reflects our effort to better understand and measure the social and environmental impact of our work over the years.

Impact Lens



Environmental Lens

The assessment emphasises process-level accountability across **materials, water, energy, and end-of-life stages.**

In Rajasthan's water-scarce region, marked by a declining water table, the system integrates **rainwater harvesting** and **on-site filtration** to reduce dependence on virgin freshwater. It also recognises the environmental benefits of **natural dyes** and **mud-resist dyeing techniques.**

Energy consumption is tracked across grid and on-site solar sources to support transparent carbon accounting.

Circular strategies such as wastewater reuse, sludge valourisation, fabric upcycling, and biodegradability enable product-level impact metrics and support continuous environmental improvement.

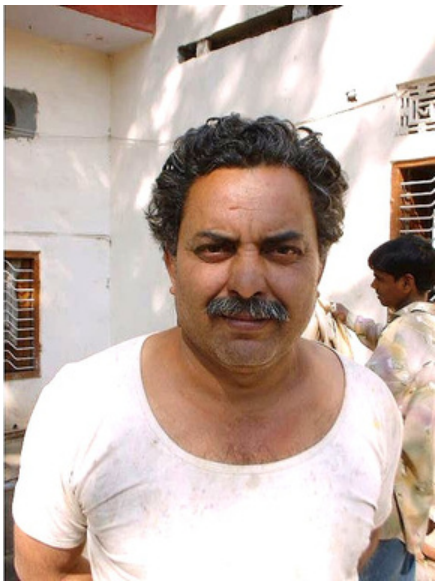


Social & Economic Lens

Social and economic impact follows a **Theory of Change (ToC) framework**. It maps over 30 years of long-term artisan engagement and product innovation to **measurable livelihood gains** and **intergenerational social transformation**.

ToC indicators track **workforce and wage growth**, **upskilling trajectories**, and **earning potential.** Holistic metrics encompass human capital development, upward mobility, social cohesion, and **spillover effects** such as improved access to education, better health outcomes, and strengthened risk management.

Krishan Kumar Dosaya, Praveen Kumar Dosaya & Damodar Nama (clockwise)



Late Raghunath Nama

"Our partnership with Chaubundi Studio is intergenerational. It began in 1993 when Raghunath Nama led the studio, and since 2008 it has been carried forward by his sons - Damodar Nama, Krishan Kumar Dosaya & Praveen Kumar Dosaya.

- Meeta Mastani



Environmental Impact

HAND PRINTING SYSTEM
Cradle-to-Grave Lifecycle

CRADLE – MATERIAL INPUTS

COTTON / SILK/ LINEN FABRIC → LOCALLY SOURCED NATURAL DYES (HARDA, KATHA, FERROUS SULPHATE) + GERMAN INDIGO, ALIZARIN → DABU RESIST: CLAY, LIME, GUM, WHEAT CHAFF BEEDAN → ON-SITE HARVESTED RAINWATER & VIRGIN FRESHWATER

MATERIAL PREPARATION

BLOCK DESIGN & MAKING → FABRIC SCOURING/ DESIZING → PRINTING INK & MUD RESIST PASTE PREPARATION

METHOD 1 - PRINTING

IRON/ALUM OUTLINE PRINTING → WASHING & DEVELOPING IN COPPER VAT FOR 6-8 HOURS → ALIZARIN BATH IN VAT TO DEVELOP RED COLOUR → SUN DRYING & SORTING FOR MUD RESIST PROCESS

METHOD 2 - MUD RESIST PRINTING

MUD RESIST & SAW DUST APPLICATION → SUN DRYING → DYE BATH & WASH → REPEAT PROCESS FOR SECOND RESIST PRINTING, IF NEEDED

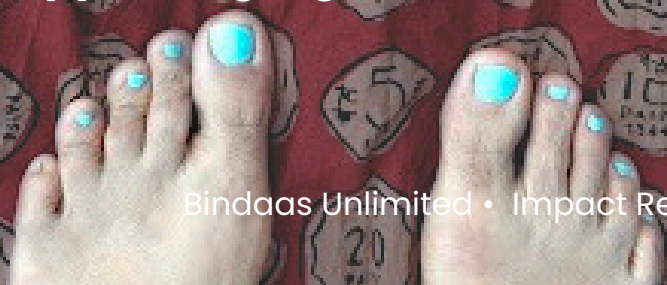
POST-PROCESSING

IRONING, CHECKING & TAILORING → DISTRIBUTION → CONSUMER USE → **END-OF-LIFE** COMPOSTABLE & LOW-TOXICITY RESIDUAL WASTE

Bridging art–craft epistemologies

> ***Part of the fun of working in rural India has been bridging the difference between art and craft with the artisan. When the actual printer prints, traditionally his skill lies in duplicating each and every impression in the exact same way. When we print our t-shirts and fabrics, we often play with the lay out and print it differently each time.***

Meeta Mastani, excerpt from The V&A blog *The Fabric of India, 'The Disappearing Tiger'*





Each of BU's printed natural dyed T-shirts avoids ~2.34 kg CO_2e at the dyeing stage.

Production Profile (Annual)

- 2,000 cotton T-shirts (200 gm fabric each)
- 400 cotton saris (5.5 m fabric each)
- 26,000 meter naturally printed fabric

Climate Impact (Dyeing Stage)*

- 4.68 t CO_2e avoided from T-shirts
- 3.51 t CO_2e avoided from saris
- 41.8 tonnes CO_2e avoided from fabric

~50 t CO_2e avoided annually

Equivalent to taking about 33 cars off the road, powering around 67 average Indian homes for a year, or avoiding nearly 30 long-haul flights.



94% lower dyeing-stage emissions in comparision to synthetic counterparts.

Naturally dyed cotton fabric emits 0.14 kg CO_2e per T-shirt, compared to 2.48 kg CO_2e for synthetic reactive dyeing.

*Methodology

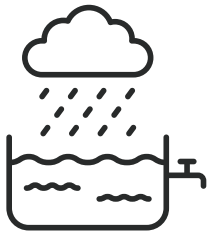
Climate impacts are based on peer-reviewed LCA studies (shared below) reporting CO_2e per kg of cotton fabric dyed. Values are scaled to garment fabric weight. System boundary includes dyeing stage only; garment construction and use phase excluded.

Radhakrishnan, S., Rajangam, R., & Peruran, P. (2024). Social and environmental impact of natural dyeing. Springer. https://doi.org/10.1007/978-3-031-47471-2_7



Water Stewardship

Since 2021, **a collaborative water recharge & rainwater harvesting initiative** has been implemented in Kaladera, Rajasthan by us in partnership with BBCP Rainwater Foundation, Manthan Kotri & Chaubundi Studio.



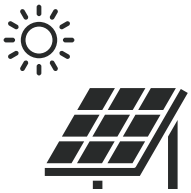
Rainwater Harvesting System

- **100,000 litres** storage capacity
- **~800,000 litres/year** used for farming, gardening, washing & cooking

Recharge Well

- **~7.3 million litres/year** reused and recharged
- Reduced groundwater extraction

Solar Energy Integration - 2 Rooftop Systems



Environmental Benefit: (1) **A 5 kW rooftop solar system** at the Chaubundi Studio, Kaladera **generates ~9000 units/year** since December 24'.
(2) **A 3kW system** in dyeing area generates **~5100 units/year**

This avoids a total of ~9.9 t CO_2 emissions/year
→ ***Equivalent to planting ~450 trees***

Economic Benefit: Annual electricity bills indicate that the studio's electricity expenditure has reduced by an estimated **~₹96,000 annually**, depending on seasonal consumption patterns.

Calculation based on CO_2 Baseline Database for the Indian Power Sector, Version 21.0 (Nov 2025) by the Central Electricity Authority, Ministry of Power, Government of India

We use between 20,000 and 25,000 litres of water daily in our printing process, and earlier much of this water was going to waste. With the recharge well and rainwater harvesting system, we are now able to filter and reuse water. Since the recharge tank has a natural base, the remaining water gradually seeps back into the earth.

We take pride in this initiative, especially knowing the challenges future generations will face around water scarcity.

Krishan Kumar Dosaya
4th Generation Block Printing Artisan-Entrepreneur





Compostability

The T-shirt is produced using 100% cotton and designed for end-of-life **compostability in 3 months.**

HOTSPOT: Compostability testing identified non-cellulosic components, including polyester in seams and tags, enabling targeted material substitutions in future sourcing.

Zero-Waste System

DABU SLUDGE: Wastewater from dabu printing is treated through a sedimentation-based filtration system.

~2.12 m³ of organic dabu mud is removed per cycle, with desludging carried out twice annually.
~4.25 m³ of organic sludge is safely intercepted/year.
100% organic matter reused to build boundaries around over 250 plants and trees on the Chaubundi studio land.

TEXTILE WASTE: The **business minimises textile waste** through corrective and innovative printing processes enabled by the double dabu technique.

Residual textile waste is repurposed into a range of products, including tote bags, scrunchies, hair bands, and handmade notebook crafted from T-shirt waste paper.



Praveen Kumar Dosaya



Social & Economic Impact

Theory of Change (ToC)

When we began working in the Dabu printing cluster of Kaladera in the early 1990s, artisan livelihoods were marked by low and irregular incomes, limited access to markets beyond local traders, and production roles focused largely on repetitive execution.

We responded to these constraints through sustained social investments and relationship-led production systems.

From 15 to 74

artisans strong today

Inputs	Activities	Outcomes
Long-term engagement with artisan households (since 1993)	Skill development: guided experimentation, layout variation, and natural dye innovation	• Workforce growth from 15 artisans (1993) to 74 artisans (2026) • Market access created for artisan-produced goods
Investment in Chaubundi Studio as a community production anchor	Mutually agreed piece-rate work with immediate payments and advances Access to unconditional, interest-free support	• Stable engagement across roles (printers, washers, dyers) • Relationship-based support (health, education, crisis response)
Artisan inclusion in public forums, committees, and governance spaces	Community-inclusive practices (annual gatherings), Travel for exhibitions & discussions	• Identity & Confidence Development



A 614%* rise in block printing incomes, transforming subsistence earning into stable monthly livelihood.

Income Increase & Earning Capacity
(Piece-Rate, Flexible Work Model)

Income impacts are assessed through earning ranges and threshold attainment rather than fixed averages, reflecting the piece-rate, flexible nature of work where artisans determine their working hours and output.

Income Increase

Before BU
₹500–3,000
(low, irregular)

→

With BU
₹5,000–20,000
(scalable, flexible)

Earnings by Role

Role	Monthly Earnings (INR)
Block printers	5,000 – 20,000
Washers	15,000 – 20,000
Dyers	14,000 – 16,000

Full-time block printers earn between 1.6–2.5× the minimum wage.

Washers and dyers earn approximately 1.9–2.2× the minimum wage.**

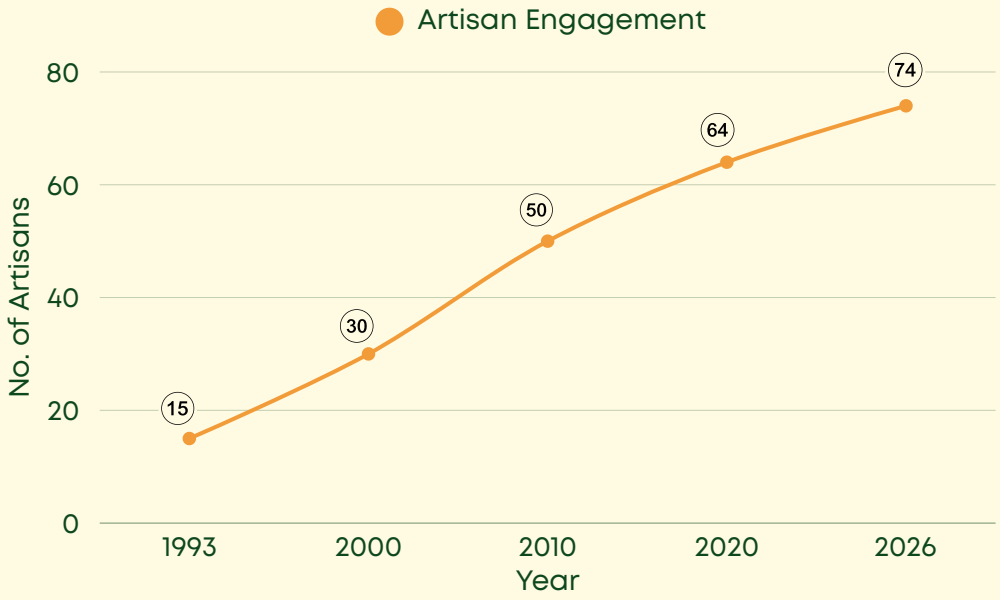
Methodology

*Based on indicative midpoint values, earning potential increased by approximately 614% between the early years of engagement and current production levels. This figure reflects expanded earning capacity rather than fixed wages.

**Wage multiples are indicative comparisons against the statutory skilled minimum wage.

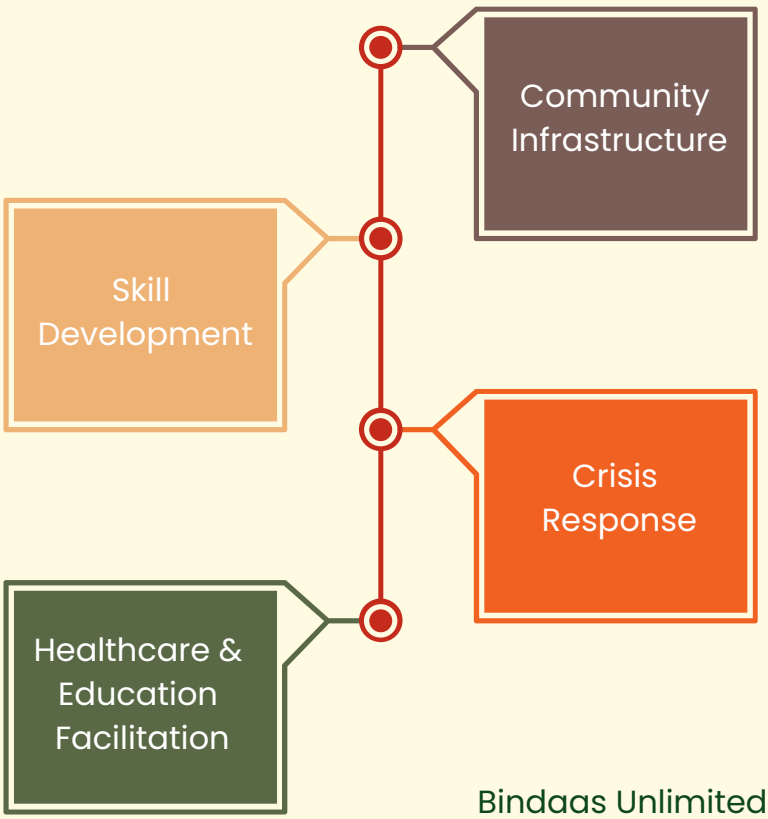
Workforce Growth

Artisan engagement across various value chains including printing, silk, patwa work. Workforce growth from 15 artisans (1993) to 74 artisans (2026).



25% of Profits Reinvested in Communities

Invested in programmes that build skills, infrastructure, and social resilience.



What Changed for People


Damodar Nama

HUMAN CAPITAL DEVELOPMENT 01.

Printers report advanced skills enabling **independent decision-making.**

Artisans represented publicly as knowledge-holders than just producers. Eg. Chaubundi Studio participated in Kula Conclave, Kala Ghoda Art Festival, Sanatkada. Included in governance spaces such as the Creative Dignity Steering Committee etc.

UPWARD SOCIAL MOBILITY BEYOND CRAFT 02.

Enabled scholarships, higher education pathways, and professional exposure for youth in artisan households, alongside positive shifts in attitudes toward girls' education and women's status within households and communities.

COMMUNITY WELL-BEING & SOCIAL COHESION 03.

Shared governance of community-led water and solar initiatives **increased environmental awareness**, enabled a shift from wood fire to gas cooking through mobilisation, and strengthened inclusion and **public recognition of printers in the village**.



URVI NAMA

25, Lawyer, Daughter of
Damodar & Saroj Nama

As the eldest child in my family, and a girl, I grew up seeing hesitation in the village around investing in girls' education and wellbeing. Meetaji's consistent engagement with our family helped shift these attitudes and encouraged my parents to support our aspirations.

Today, I work as a practising lawyer with Fidus Law Chambers, Noida, and am the first person in my extended family to earn a professional degree. Meeta also helped connect me to an internship opportunity in Delhi with the firm where I now work. My parents now feel extremely proud of me and my sister, who is pursuing an MBA.



NISHA NAMA

38, Marketing Associate & Wife
of Praveen Kumar Dosaya

Seeing Meeta drive to Kaladera and run a successful enterprise independently had a powerful impact on how women here began to rethink their potential.

For Meeta, it was never only about work, but about her engagement with the community. When she encouraged my mother-in-law, Kalavati, to wear a suit or do away with the ghunghat, many of us gradually followed. The shift was not only in how we dressed, but also in how openly we live and celebrate.

Earlier, women did not publicly participate in festivals; today we celebrate alongside elders and men in the family. If you visit Kaladera now, you will see women running shops and working across many roles.

A Case Study Market Linkages for Patwa Craft



Around the early 1990s, I had stopped practising my family's traditional Patwa threadwork used for finishing jewellery, as market demand had declined. At the time, I was selling small women's items from Sadar Bazaar in Delhi. I met Meeta in 1994, who encouraged me to develop contemporary jewellery pieces.

Our work later reached platforms such as Dastkar, the Crafts Council of India, Either Or in Pune, and People Tree, bringing consistent work and visibility to this craft. Today, five artisan families in Kaladera village practise this threadwork, including my daughter Meena, who continues the tradition passed down from my father.

Kailash Patwa
Master artisan of Patwa Threadwork

Cultural Renewal

Over the last three decades, Bindaas Unlimited has sustained many craft techniques through innovation rooted in traditional systems.

Double Dabu



Motif-over-motif technique or double dabu was developed by Bindaas Unlimited and Chaubundi Studio around 1994–95.

Expanding Natural Colours



Development of new tones in natural dye like ‘pink’ through adaptive use of natural dyes.

Bridging Art and Craft

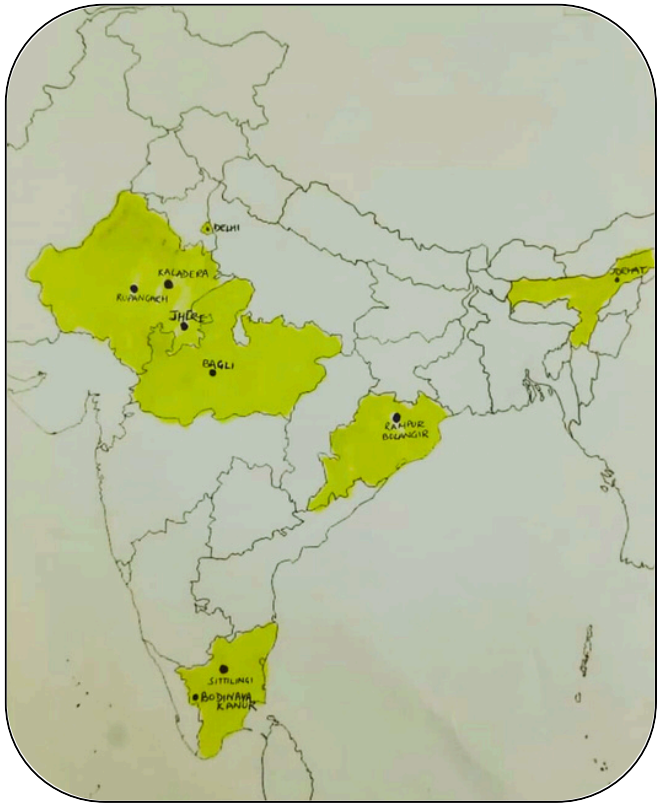


Contemporary graphic layouts enable artisans to move beyond replication, exercising aesthetic judgement while retaining traditional printing knowledge.

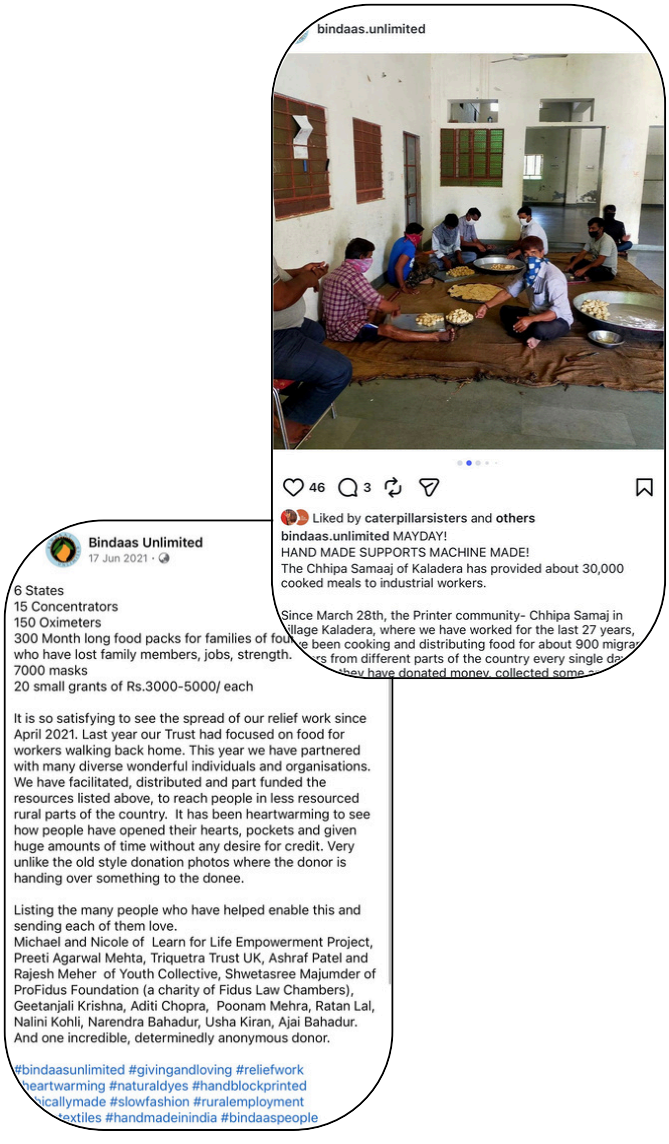
Community Welfare Programmes

Relief, Resilience and Risk Mitigation

- During COVID-19 in 2021, we supported a community food relief camp for 25 days, in collaboration with Chaubundi Studio and the Kaladera village community, serving 900 people/day.
- Emergency financial support of INR 30,000+ was extended through Creative Dignity (CD) Craft Care Relief and Recovery Fund and INR 50,000+ by the company to a block printer to enable medical recovery.
- Relief work in 6 states through professional and personal network activation. It included medical equipment, food and fund assistance.
- Loan access for associated artisan groups via institutional networks (e.g., INR 2 lakh via CD/Dream Foundation)
- Two dyers who worked in marble factory suffered from silicosis. BU helped with oxygen cylinders twice(3 years and 5 years back).



COVID-19 relief work conducted in 6 states in 2021



Annual Artisan Gathering: A Marker of Community Well-being



Bindaas Unlimited hosts an annual gathering of artisans and their extended families.



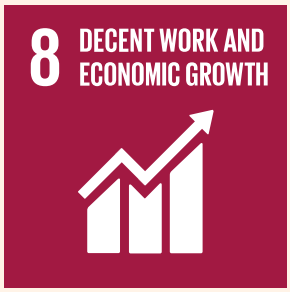
- Cash bonuses distributed
- Inclusion of extended artisan families and all associated artisans
- Meal prepared collectively
- Photo documentation as personal keepsakes

Prosperity visible within the village | Artisan recognition | Women Inclusion

The annual gathering functions as a social indicator of prosperity, economic continuity, and mutual accountability within the production ecosystem.

Priority UN SDGs

Bindaas Unlimited contributes to UN SDGs 8, 12 and 6 through long-term artisan engagement, better production practices, and measurable water stewardship. Secondary contributions extend to SDGs 13, 4, 5 and 17 through climate mitigation, skill development, gender inclusion, and multi-stakeholder collaboration.



Decent Work and Economic Growth

- Workforce growth from 15 to 74 artisans
- Piece-rate work above skilled minimum wage benchmarks
- Market access expansion for artisans including Patwas
- Intergenerational livelihood continuity
- Reverse migration



Responsible Consumption and Production

- Natural dyes with 94% lower dye-stage emissions
- Compostable cotton products
- Organic sludge use in plantation activities
- Textile waste upcycling
- Lifecycle-based assessment (cradle-to-grave system, p.8)



Clean Water and Sanitation

- 7.3 million litres/year groundwater recharge
- 800,000 litres redirected via rainwater harvesting
- On-site filtration systems in a water-stressed region (p.11)

Other Enabling Goals











Late Kalavati Devi, master natural dyer Raghunath's wife

Assessment Methodology

This impact assessment draws on primary data collected from the founder's office and artisan partners in Kaladera, Rajasthan, as well as associated production partners such as Caterpillar Sisters, West Bengal.

A mixed-methods approach combines qualitative field insights with quantitative estimation and modeling. Environmental assessments reference academic literature, industry and government benchmarks, Life Cycle Assessment (LCA) principles (ISO 14040/44), and nationally validated carbon-emission factors. Where direct measurement was not feasible, data has been extrapolated using transparent assumptions and triangulated across multiple sources.

Scope & Interpretation Note

This report presents a contribution-based assessment of social and environmental impact. Income figures reflect reported earning ranges within a piece-rate, flexible work model and should not be interpreted as fixed or guaranteed wages. Percentage changes are indicative and calculated using midpoint comparisons of reported ranges.

Environmental estimates represent modeled approximations based on established benchmarks and national reference data. References to the Sustainable Development Goals (SDGs) indicate areas of alignment and contribution and do not imply direct attribution to national or global targets.



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