

## **Recycled Copy Manufacturing Unit in Uttarakhand**



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### 1. Introduction

A recycled copy manufacturing unit focuses on producing writing copies and notebooks using recycled paper as the main raw material. This enterprise addresses the increasing demand for sustainable stationery products while contributing to waste reduction and resource conservation. With rising environmental concerns and government encouragement for eco-friendly practices, such a unit aligns with sustainable development goals and has the potential to create green employment opportunities in Uttarakhand.

This initiative can also reduce the state's dependence on imported paper stationery by promoting local production from locally available waste paper. By collecting used paper from schools, offices, and local recycling centers, the unit can ensure a continuous raw material supply and reduce the carbon footprint associated with long-distance transportation of fresh pulp paper. The unit can produce a range of recycled paper copies for schools, colleges, offices, and retail markets.

Setting up this unit will not only provide an eco-friendly alternative in the market but also create local livelihood opportunities for youth and women in production, packaging, and distribution. It will help in building Uttarakhand's image as a green state while contributing to the circular economy by converting waste into value-added products.

### 2. Industry Overview

The Indian paper and paper products industry is one of the largest globally, with an estimated market size of over INR 70,000 crore. Within this, recycled paper products are witnessing strong growth due to rising environmental awareness, corporate sustainability commitments, and government policies promoting recycling. The demand for eco-friendly stationery has grown steadily, especially among schools, educational institutions, and environmentally conscious consumers.

Uttarakhand has a growing education sector with numerous schools, colleges, universities, and coaching centers that generate continuous demand for notebooks and copies. However, most of these products are sourced from other states, leading to higher costs and transport-related emissions. Establishing a recycled copy manufacturing unit can serve this untapped local demand while promoting sustainable production.

With the government pushing Extended Producer Responsibility (EPR) and green procurement practices, recycled paper products are gaining greater acceptance. The industry is also



witnessing technological improvements that enable cost-effective and high-quality recycled paper production, making it a viable and competitive alternative to virgin paper.

### 3. Products and Application

The main products will be writing copies, notebooks, drawing books, and exercise books made from recycled paper sheets. They will be available in various sizes such as A4, A5, and long books, with different page counts to cater to school and office needs. Cover pages will also be made from recycled or kraft paper, ensuring the entire product remains eco-friendly.

These copies can be supplied to educational institutions, offices, government departments, NGOs, and stationery retailers across Uttarakhand. Customized branding and printing can be offered for bulk institutional orders. The products can also be sold through local bookshops, online marketplaces, and school supply chains.

Over time, the product range can be expanded to include planners, diaries, and spiral notebooks, further diversifying the revenue base and increasing market reach. Such eco-friendly copies will also appeal to CSR procurement programs of companies operating in Uttarakhand.

### 4. Desired Qualification

The entrepreneur should preferably have a background in business management, printing technology, or paper manufacturing. Knowledge of production processes, quality control, and inventory management will be useful to ensure efficiency and maintain consistent quality.

A basic understanding of marketing, branding, and supply chain management is also important to establish a market presence and manage distribution. Training in entrepreneurship or MSME cluster development programs can be helpful for building operational and financial management skills.

The workforce should include experienced machine operators, quality control staff, packaging workers, and administrative personnel. Providing training on recycling techniques, safety practices, and equipment handling will improve productivity and reduce wastage.

### 5. Business Outlook and Trend

The business outlook for recycled copy manufacturing is highly positive due to the growing emphasis on sustainability. Schools and offices are increasingly willing to adopt recycled products as part of their green initiatives. There is also a trend of eco-conscious parents and students preferring products with lower environmental footprints.

Technological improvements in paper recycling have made recycled copies more durable and aesthetically appealing, which has enhanced consumer acceptance. Retailers are also stocking more eco-friendly stationery as part of their responsible brand positioning.



With increasing awareness campaigns and state government policies promoting sustainable products, the demand for recycled paper copies in Uttarakhand is expected to rise significantly over the next decade, making it a future-ready business venture.

## 6. Market Potential and Market Issues

The market potential is substantial given Uttarakhand's large student population and growing office sector. Schools, colleges, and training institutes provide a steady and predictable demand base. Government procurement programs and CSR initiatives can also become major buyers of eco-friendly stationery.

However, market challenges include competition from low-cost mass-produced copies from other states, initial skepticism about the quality of recycled paper products, and the need to build consumer trust. Price sensitivity among buyers can also be a hurdle initially.

To overcome these issues, the unit must focus on consistent quality, attractive designs, competitive pricing, and strong marketing emphasizing environmental benefits. Bulk tie-ups with schools and offices will ensure stable demand and lower marketing costs.

## 7. Raw Material and Infrastructure

The main raw materials include recycled paper sheets, kraft paper for covers, stitching thread or spiral binding wire, gum, and eco-friendly inks for printing. Waste paper can be sourced from local scrap dealers, schools, printing presses, and recycling centers within Uttarakhand.

Infrastructure requirements include a production shed of about 2500–3000 square feet for housing machinery, storage, and packaging sections. A small office area for administration and sales operations will also be needed.

Basic utilities like electricity, water, internet connectivity, and material handling equipment such as trolleys and racks are essential. An in-house recycling unit can be added in the future to process collected waste paper into sheets, reducing dependence on external suppliers.

## 8. Operational Flow and Flow Chart

The production process starts with procurement of recycled paper sheets and other materials. The sheets are cut to size, ruled, folded, and assembled. Binding is done using stitching or spiral wire. Cover pages are printed and attached, followed by trimming and packaging.

Quality control is performed at each stage to ensure uniform size, ruling clarity, binding strength, and neat finishing. Finished copies are packed in bundles and sent to the distribution warehouse.



**Flow Chart:**

**Procurement of Recycled Paper → Cutting and Ruling → Folding and Gathering → Binding → Cover Printing → Assembling → Trimming → Packaging → Distribution**

## 9. Target Beneficiaries

The primary beneficiaries will be students, schools, colleges, coaching centers, and offices across Uttarakhand who will get access to eco-friendly and cost-effective copies. Local stationery retailers will benefit by selling sustainable products.

The unit will create employment opportunities for youth and women in production, packaging, quality control, and sales. Waste paper collectors and recyclers will get a steady market for their materials, encouraging waste segregation.

By reducing the use of virgin paper, this venture will contribute to environmental protection, benefiting the larger community and future generations.

## 10. Suitable Locations

Suitable locations include Dehradun, Haridwar, Haldwani, Rudrapur, and Kashipur due to their connectivity, availability of raw materials, and proximity to large educational markets. These cities also offer access to skilled labor and industrial support infrastructure.

Units can also be set up in smaller towns like Almora and Pauri to promote regional development if good logistics and market linkages are ensured. Location should be chosen based on access to waste paper suppliers and transport facilities for distribution.

Setting up the unit in an industrial estate will offer benefits such as subsidized land, ready utilities, and ease of regulatory approvals.

## 11. Manpower Requirement

The unit will initially require about 25 workers including 1 manager, 3 supervisors, 10 machine operators, 6 packaging workers, 3 quality control staff, and 2 sales executives. Administrative and accounting staff will also be needed.

As production scales up, the workforce can be expanded to handle higher volumes. Contractual workers can be hired during peak academic seasons to meet demand surges.

Regular skill development and safety training will enhance efficiency and minimize production downtime or accidents.



## 12. Implementation Schedule

Activity	Timeline (Months)
DPR preparation and company registration	0–2
Land acquisition or lease and construction	2–4
Machinery procurement and installation	4–6
Recruitment and staff training	6–7
Trial production and quality checks	7–8
Commercial production launch	8–9

## 13. Estimated Project Cost

Cost Head	Amount (INR)
Building and civil works	12,00,000
Machinery and equipment	20,00,000
Office setup and IT systems	2,00,000
Pre-operative expenses	2,00,000
Salaries and wages (first year)	15,00,000
Working capital and raw material	9,00,000
Total Estimated Cost	60,00,000





## 14. Means of Finance

The project can be financed with 30% promoter equity, 60% term loan from banks under the MSME manufacturing category, and 10% capital subsidy available under state industrial promotion schemes. Loans can also be supported under the CGTMSE scheme for collateral-free credit.

Working capital can be arranged through cash credit limits, invoice discounting, and advance payments from bulk buyers. Government incentives for recycled product units can further reduce the financial burden.

A sound financial plan will ensure smooth cash flow and support expansion of production capacity as demand grows.

## 15. Revenue Streams

Revenue will be generated from the sale of recycled paper copies to schools, colleges, retailers, and offices. Bulk institutional orders will provide steady and predictable income.

Additional income can come from customized printing and branding services, premium eco-friendly stationery products, and online sales channels. Over time, the unit can also offer white-label production for other stationery brands.

Efficient production and strong distribution partnerships will help achieve high sales volumes and market penetration.

## 16. Profitability Streams

Profitability will depend on achieving economies of scale, efficient raw material sourcing, and maintaining low wastage. As the brand gains recognition, higher margins can be charged for eco-friendly and customized products.

Vertical integration by setting up an in-house recycling unit will reduce raw material costs and improve profit margins. Offering bulk supply contracts to schools and offices will also improve profitability through guaranteed sales.

Strong financial discipline, quality control, and marketing will ensure sustainable profits and long-term viability.



## 17. Break-even Analysis

Parameter	Estimate
Total project cost	60,00,000
Average monthly revenue	9,00,000
Average monthly operating expenses	5,50,000
Monthly net surplus	3,50,000
Break-even period	20–22 months

## 18. Marketing Strategies

Marketing will focus on positioning the product as a high-quality eco-friendly alternative. Awareness campaigns highlighting the environmental benefits of recycled copies will attract schools and CSR buyers.

Participation in education fairs, tie-ups with school supply chains, and collaborations with NGOs promoting sustainability will boost visibility. Attractive packaging and branding will appeal to retail customers.

A professional website, social media promotions, and online sales through marketplaces like Amazon and Flipkart will expand reach beyond local markets.





## 19. Machinery Required and Vendors

Machinery	Quantity	Purpose	Suggested Vendors (Uttarakhand)
Paper cutting machine	2	Cutting sheets to required size	Haridwar industrial suppliers
Ruling machine	2	Ruling lines on pages	Dehradun machinery dealers
Folding and gathering machine	2	Assembling sheets into sets	Rudrapur equipment suppliers
Binding/stitching machine	4	Binding sheets into notebooks	Kashipur machinery vendors
Cover printing and trimming machine	2	Printing covers and finishing edges	Haldwani printing suppliers

## 20. Environmental Benefits

The unit will divert large volumes of waste paper from landfills and convert them into useful products, reducing deforestation and pressure on virgin pulp resources. This contributes to the circular economy and reduces carbon emissions.

Recycled paper production uses significantly less water and energy compared to virgin paper, thereby conserving natural resources. The use of eco-friendly inks and materials will further minimize environmental impact.

By promoting green consumerism and sustainable practices, this unit will support Uttarakhand's environmental protection goals and set an example for responsible manufacturing.

## 21. Future Opportunities

Future opportunities include setting up an in-house paper recycling plant to produce paper sheets, expanding into other recycled stationery products like diaries and planners, and building an e-commerce brand for eco-friendly stationery.



Franchising or opening sales outlets across hill towns can increase market penetration. Export opportunities can be explored by supplying recycled notebooks to eco-conscious international markets.

In the long term, this venture can evolve into a leading sustainable stationery brand from Uttarakhand, contributing to both environmental conservation and regional economic development.

### **Disclaimer**

Only a few machine manufacturers are mentioned in the profile, although many machine manufacturers are available in the market. The addresses given for machinery manufacturers have been taken from reliable sources, to the best of knowledge and contacts. However, no responsibility is admitted, in case any inadvertent error or incorrectness is noticed therein. Further the same have been given by way of information only and do not imply any recommendation.

