Annual Progress Report

Department of Environmental Science

(2025-2026)

Rajkiya Kanya Mahavidyalaya (RKMV), Shimla

Submitted by:
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Submitted to:
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Index of Reports by Date

Date	Activity/Event Title	Remarks
Aug 5 – Aug 30, 2025	Value-Added Course: Basics of Gardening	
Sept 20, 2025	Exhibition: "Green Minds at Work" at RASOTSAV	
Sept 29, 2025	Humanitarian Initiative: Roti-Making for Cancer Hospital	
Oct 17, 2025	Diwali Mela Exhibition: Green Minds at Work	
Nov 3, 2025	Inter-Faculty Exchange: Lecture on Disasters & Management	
April 22, 2026	Celebration of International Mother Earth Day	
Academic Session (Projects ongoing full Session)	a. Large-scale Multidisciplinary Projects: "Green Minds at Work" b. Pyare Paudhae c. Milk packets collection and recycling d. Composting e. Single use plastic collection and hand over to MC Shimla	

The Department of Environmental Science at Rajkiya Kanya Mahavidyalaya (RKMV), Shimla, has redefined the academic experience for the 2025-2026 session by transitioning from **"Passive Awareness"** to **"Practical Environmentalism"**. Recognizing that global climate narratives often feel distant, the department focused on localizing crises to foster deep-seated environmental consciousness within the student body.

The department operates as a collaborative platform, uniting faculty and undergraduate students from diverse fields—including **B.Sc., B.Voc., B.A., B.Com., B.Sc. Micro, B.Sc. Biotech., BCA** to emphasize that protecting the planet is a shared multidisciplinary responsibility. By viewing the Earth not as a commodity but as a living extension of ourselves, the department aims to lighten the anthropogenic burden on the fragile Himalayan ecosystem through innovation, introspection, and ground-level action.

2. Vision and Mission of the Department

The vision of the department is to foster a profound internalization of the connection between the individual and the ecosystem. It seeks to redefine environmental protection not as a burdensome chore or a periodic duty, but as a spontaneous natural instinct—as vital and spontaneous as self-preservation. The department aspires to transform the institution into a hub for civic responsibility where "Green Minds" are cultivated to lead a resilient and sustainable future for the Himalayan region.

Mission

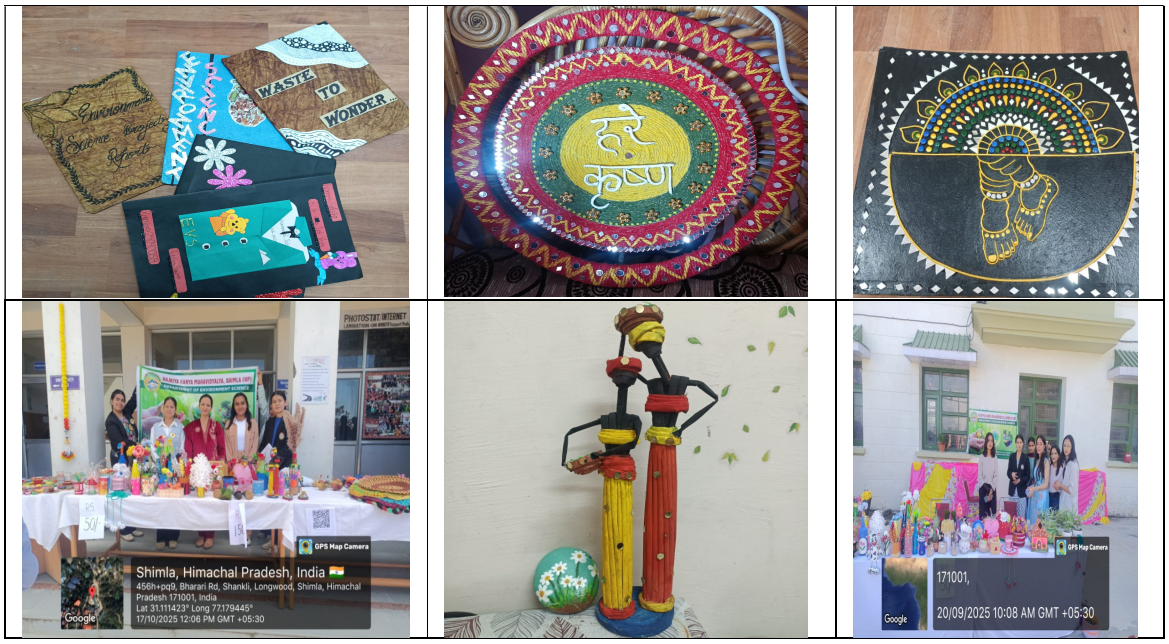
- **Practical Engagement:** To shift the paradigm from theoretical lectures to daily disciplines and micro-actions.
- **Waste Transformation:** To promote the **3Rs (Reduce, Reuse, Recycle)** through a "Waste to Wealth" lens, proving that sustainability is economically viable.
- **Civic Responsibility:** To establish RKMV as a hub for community welfare by linking environmental education with social compassion and municipal partnerships.
- **Multidisciplinary Problem Solving:** To integrate spatial analysis, policy-making, and narrative power to address complex ecological challenges holistically.

- **Pedagogical Innovation:** Utilizing Project-Based Learning (PBL) and the principle of "Learning by Doing" to bridge the gap between classroom theory and real-world ecological challenges.
- **Multidisciplinary Collaboration:** Uniting diverse academic streams—including Geography, Political Science, English, Commerce, and Science—to emphasize that environmental preservation is a shared responsibility.
- **Localized Action:** Focusing on the specific vulnerabilities of the Himalayan ecosystem, such as glacial retreat, erratic precipitation, and waste management.

A. Core Departmental Projects & Sustainable Initiatives

<u>Project 1</u> : Green Minds at Work: Leading the Charge in Practical Environmentalism (Project based learning)

The Department of Environmental Science at Rajkiya Kanya Mahavidyalaya (RKMV), Shimla, successfully executed the multidisciplinary project **"Green Minds at Work: From Waste Transformation to Disaster Awareness and Eco-Friendly Living"** during the 2025-2026 session. Under the supervision of Dr. Meena Kumari, this large-scale initiative mobilized approximately **1,000 students** from various academic streams, including B.Sc., B.A., B.Com., and B.Voc.



Motive and Methodology: The project was driven by the pedagogical principle of **"Learning by Doing"** through Project-Based Learning (PBL). The primary motive was to bridge the gap between theoretical classroom concepts and real-world ecological challenges. Students were divided into groups to tackle specific themes such as waste recycling, sustainable fashion, and natural product formulation. Unlike traditional models, this approach empowered students to become active participants in environmental stewardship, fostering creativity, problem-solving skills, and a sense of collective responsibility.

Impactful Initiatives and Outcomes

- **Waste Innovation:** Students transformed discarded materials into valuable products, such as turning old clothes into fabric bags, newspapers into file covers, and glass bottles into functional art.
- **Sustainable Products:** Hands-on sessions allowed students to formulate eco-friendly items like plant-based soaps and candles, providing early exposure to **green entrepreneurship**.
- **Disaster Awareness:** Research-oriented surveys analyzed the socio-economic impacts of flash floods and cloudbursts in Himachal Pradesh, linking these disasters to climate change.
- **Community Engagement:** Through awareness drives and plastic collection campaigns, students sensitized local communities about the hazards of single-use plastic and the benefits of sustainable living.
- During the "Green Minds at Work" exhibition at the Diwali Mela, students exhibited products made from discarded materials, including glass bottle art, newspaper file covers, and fabric bags.
- **Importance**: Encourages students to rethink "waste" as a resource and promotes the **3Rs (Reduce, Reuse, Recycle)**.
- **Impact**:

Entrepreneurial: Students earned **₹10,000** from the sale of these innovative products.

Educational Excellence: The exhibition set a benchmark in integrating project-based learning with community action, drawing visitors from nine nearby colleges.

The project concluded as a resounding success, equipping the next generation with the innovation and resilience necessary to shape a sustainable future for the region.

Project 2: "Pyare Paudhae": Nursery Management & Green Gifting

This project focused on raising diverse green plant species within the college nursery. The day-to-day operations were helped out by two dedicated BA 2nd-year interns, Ms. Muskan Verma and Ms. Sneha Kalyani, who applied skills learned in the "Basics of Gardening" value-added course.

Importance: This initiative bridges the gap between academic theory and vocational training. It transforms the nursery into a "living laboratory" where students learn soil management, propagation techniques, and eco-friendly pest control.

Impact:

- **Economic**: The project demonstrated the viability of "Green Entrepreneurship" by generating a **net profit of ₹57,000** through the sale of nursery-raised plants as gifts for college functions.
- **Environmental**: Promoted sustainable gifting practices, replacing non-biodegradable mementos with living oxygen-producers.

Project 3: Composting: Waste to Wealth

Biodegradable waste from the college canteen was redirected from the trash to college compost pits. Students under guidance of staff practiced vermi-composting by adding earthworms, cow dung and regularly sprinkling of water and turning waste upside down to accelerate the decomposition process.

Importance: Organic waste in landfills produces methane, a potent greenhouse gas. This project teaches students the circular economy concept: turning "waste" back into a nutrient-rich resource for the nursery.

Impact:

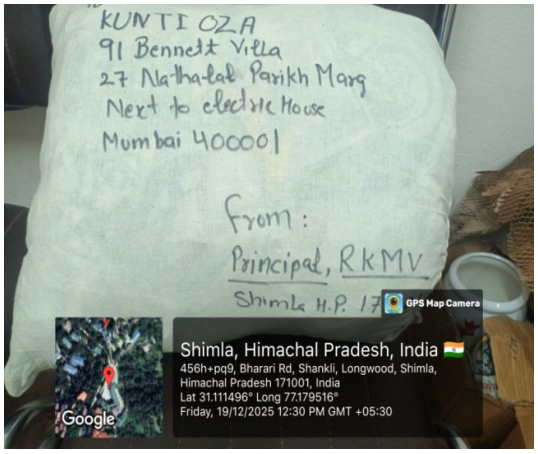
Tangible Output: Produced **250 kg of high-quality green compost**.

Revenue: The compost is ready for sale with an estimated value of **₹5,000**, further supporting departmental green activities.

<u>Project 4</u>. Milk Packet Collection & Recycling Drive

Detailed Initiative: A systematic collection drive was launched across the campus, targeting low-density polyethylene (LDPE) milk packets that are often discarded in general waste. Staff and students contributed approximately **50 kg** of packets (Clean and dried).

Importance: Milk packets are a major contributor to urban plastic pollution but are highly recyclable if kept clean and segregated. This initiative highlighted the importance of "source segregation".



Impact:

Waste Diversion: Successfully diverted 50 kg of plastic from local landfills.

Partnership: The collected material was sent to a specialized **Mumbai-based NGO**, ensuring the plastic was transformed into useful recycled products rather than polluting the Himalayan ecosystem.

<u>Project 5</u>: Single-Use Plastic (SUP) Eradication & MC Shimla Partnership

This large-scale campaign involved students, staff, and neighboring schools in a massive clean-up and collection drive for Single-Use Plastics. The department collected **300 kg** of SUP this session.

Importance: SUP is a critical threat to mountain ecology and drainage systems. This project moved beyond "passive awareness" to "practical environmentalism".

Impact:

Financial & Civic: By handing over the collected 300 kg of SUP to **MC Shimla** at a rate of ₹75/kg, the department earned **₹25,000**.



Social Responsibility: Students emerged as "change agents," sensitizing local communities about the harms of non-biodegradable waste.

B. Academic & Skill Development Highlights

1. Value-Added Course on Gardening: The Value-Added Course on Gardening, organized by the Department of Environmental Science at **RKMV, Shimla**, provided 45 students with a comprehensive, hands-on horticultural education. Spanning 30 sessions, the curriculum was evenly split between 15 theory and 15 practical modules to ensure a balance of academic knowledge and field skills.


Students explored critical topics including soil health management, advanced plant propagation techniques, and sustainable gardening tailored to the Himalayan region. By shifting from "passive awareness" to "practical environmentalism" , the course empowered participants to view the Earth as an extension of themselves. This initiative successfully transformed gardening into a daily discipline for ecological preservation.

2. Inter-Faculty Exchange Program: The Inter-Faculty Exchange Program, featuring Dr. Reenu Devi's lecture on "Disasters, Their Management, and Challenges," marks a pivotal shift toward multidisciplinary education. By integrating Geography and Environmental Science, the program addresses disasters not merely as isolated physical events, but as complex interactions between human systems and the natural world.

Bridging the Academic Gap Geography provides the "where," utilizing GIS mapping and spatial analysis to identify high-risk zones like floodplains or seismic belts. Environmental Science provides the "why" and "how," focusing on ecosystem health, climate variables, and

the long-term ecological impact of disasters. Dr. Reenu Devi's lecture synthesized these views, teaching students that effective management requires both topographical precision and biological sustainability.

Addressing Contemporary Challenges The session highlighted the "Disaster Management Cycle" Mitigation, Preparedness, Response, and Recovery while emphasizing modern hurdles like **Climate Change** and rapid urbanization. It moved beyond "hard engineering" solutions, advocating for nature-based defenses such as mangrove restoration to mitigate storm surges.

This exchange fosters "holistic literacy," ensuring future professionals don't work in silos. By blending these faculties, the program prepares students to design resilient infrastructure that protects both human lives and the environmental integrity of the planet.

3. International Mother Earth Day 2026: On April 22, 2026**,** Rajkiya Kanya Mahavidyalaya (RKMV), Shimla, celebrated International Mother Earth Day under the theme **"Our Power, Our Planet"**. Orchestrated by the Department of Environmental Science, the event united postgraduate departments—including Geography, Political Science, English, and Commerce—to foster multidisciplinary environmental responsibility.

Principal Dr. Anurita Saxena delivered a keynote address emphasizing **individual agency**, challenging participants to shift from "passive awareness" to "practical environmentalism". Key initiatives included:

- **Plastic Collection Drive:** A formal pledge to collect single-use plastic for scientific management by MC Shimla to protect the fragile **Himalayan ecosystem**.
- **"Waste to Wealth" Exhibition:** Students showcased innovative products made from recycled materials, demonstrating the **3Rs (Reduce, Reuse, Recycle).**
- **Community Cleanup:** Sainik Hostel staff and students restored a local Bawadi (historic water source) to promote water security.

The celebration successfully redefined environmental protection as a natural instinct, empowering the RKMV community to lead as a hub for civic responsibility.

4. Social Responsibility & Community Outreach

Humanitarian Service: Roti-Making service

On September 29, 2025, a group of 17 students prepared fresh chapaties in the Home Science Lab to be delivered to the Cancer Hospital, IGMC Shimla**.**

Importance: Links environmental education with social compassion and humanitarian service.

Impact:

Community Welfare: Provided direct nutritional support to patients in need.

Value Building: Instilled a sense of empathy and collective responsibility in the student body.

Inter-College Engagement: The "Green Minds at Work" exhibition during RASOTSAV was witnessed by students and staff from nine nearby government colleges, fostering regional environmental awareness.

Financial Outcomes

The department has successfully demonstrated that sustainability is a powerful economic driver, reaching a milestone of **approx. ₹1 Lakh** in total value generated for college:

Initiative	Value Generated (INR)
Nursery Management ("Pyare Paudhae")	**₹57,000**
Plastic Waste Sale (MC Shimla)	**₹25,000**
"Green Minds" Exhibition Sales	**₹10,000**
Vermicompost Production (Estimated Value)	**₹5,000**
Value-Added Course (Gardening)	**₹3,500**
Total Economic Impact	**₹1,00,500**

Conclusion

The Department of Environmental Science at RKMV, Shimla, has successfully demonstrated that environmental education, when rooted in social responsibility and economic viability, becomes a powerful catalyst for institutional change. By transitioning from theoretical "Passive Awareness" to "Practical Environmentalism," the department has proven that sustainability is a significant economic driver. This is evidenced by the generation of approximately **₹1,00,500** in total value through innovative initiatives such as the "Pyare Paudhae" nursery project (₹57,000), plastic waste sales to MC Shimla (₹25,000), exhibition sales (₹10,000), and specialized courses and composting (₹8,500).

Beyond financial success, the most profound outcome is the cultivation of "Green Minds" across a multidisciplinary spectrum of over 1,000 students. By integrating Geography, Political Science, and Commerce students into the conservation narrative, the department has fostered a moral compass that views the Earth as an extension of the self. The successful diversion of over 700 kg of waste and humanitarian services at IGMC illustrate that environmentalism has moved from a "periodic duty" to a "natural instinct." This holistic approach establishes RKMV as a regional hub for civic responsibility, ensuring a resilient foundation for the Himalayan ecosystem for generations to come.

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