

# Report

## On

# Plastic-Free Campus

5.2 (iv)

## 1. Introduction

Plastic pollution has become one of the most urgent environmental challenges of the modern world. Educational institutions play a crucial role in promoting sustainable practices and creating awareness among students. A *Plastic-Free Campus* initiative ensures responsible waste management, reduced single-use plastic consumption, and the development of eco-friendly habits within the community.

This report highlights the use of colour-coded dustbins observed on campus, which support the segregation of waste and contribute to plastic-free goals.

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## 2. Objective of the Initiative


The main objectives of achieving a plastic-free campus are:

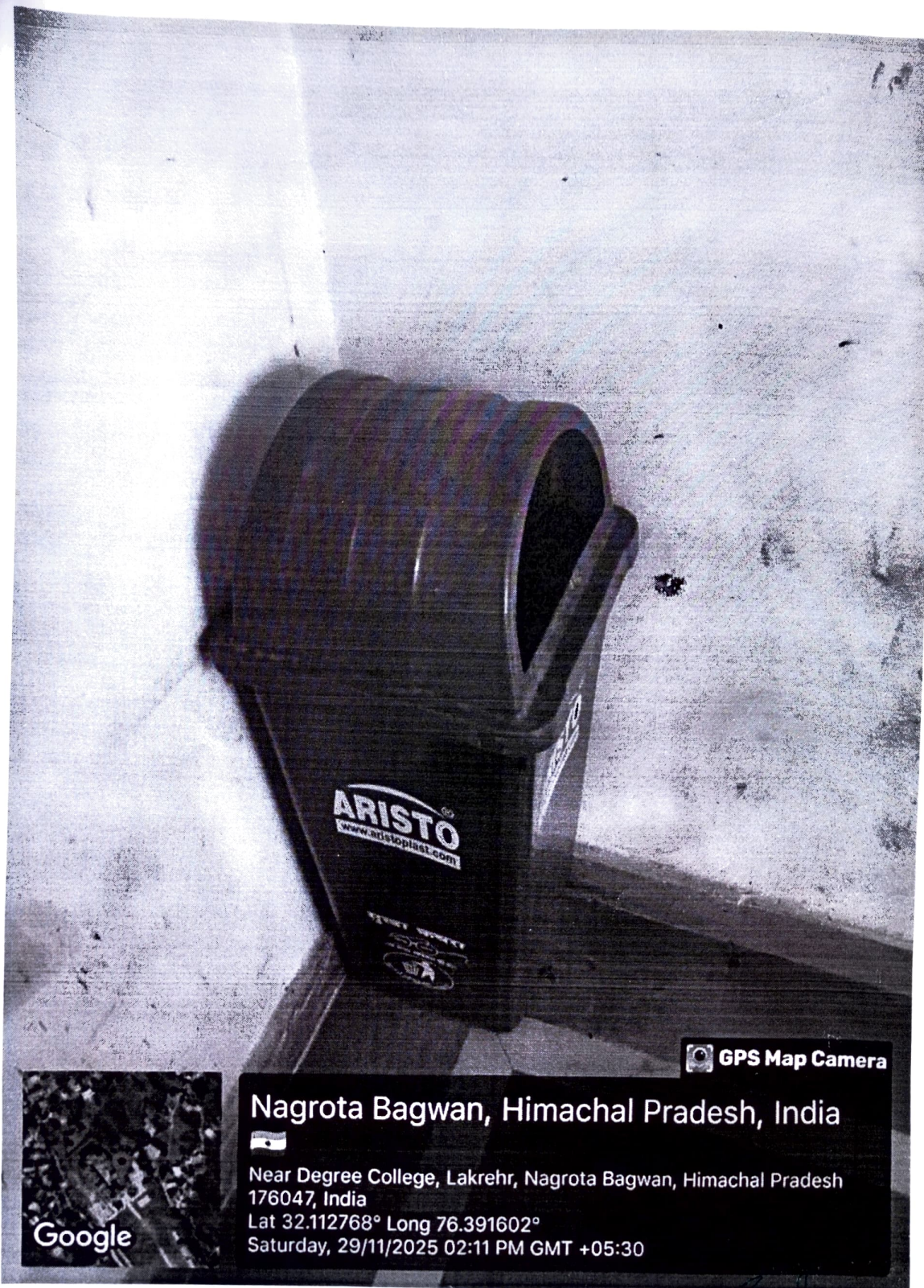
- To minimize the use of single-use plastics.
- To promote recycling and proper waste segregation.
- To create awareness about environmental protection.
- To maintain a clean, hygienic, and sustainable campus environment.

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## 3. Observations from the Campus

During the inspection, **separate colour-coded dustbins** were found installed in the campus corridors. These dustbins help in sorting waste at the source—an essential step in plastic-free management.

  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (H.P.)



## Nagrota Bagwan, Himachal Pradesh, India



Near Degree College, Lakrehr, Nagrota Bagwan, Himachal Pradesh  
176047, India

Lat 32.112768° Long 76.391602°

Saturday, 29/11/2025 02:11 PM GMT +05:30

*Kumar*  
Principal


GC Nagrota Bagwan  
Distt. Kangra (H.P)





 **GPS Map Camera**

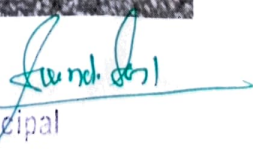
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176047, India

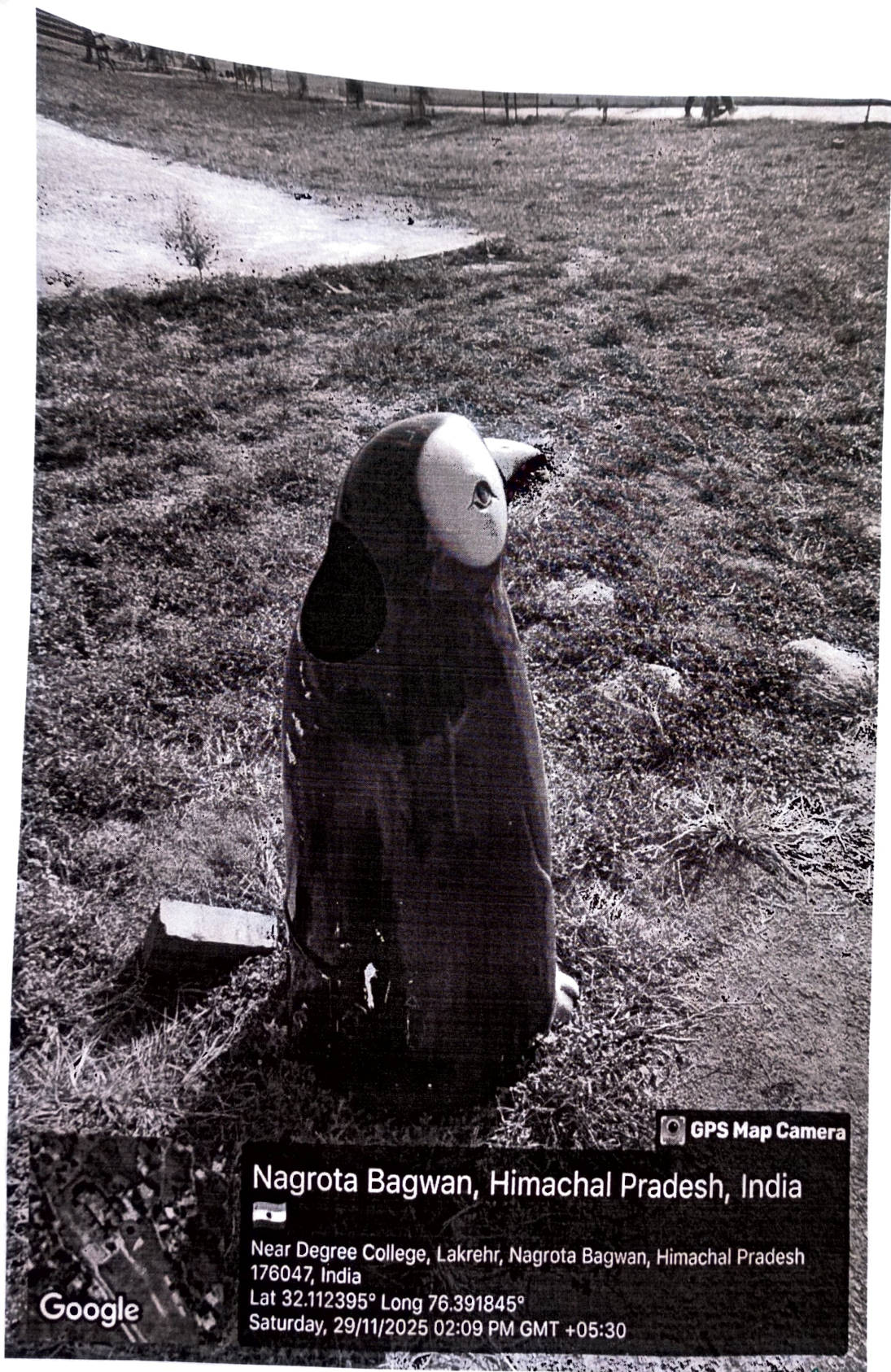
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Google

  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (H.P)





Google

GPS Map Camera

Nagrota Bagwan, Himachal Pradesh, India

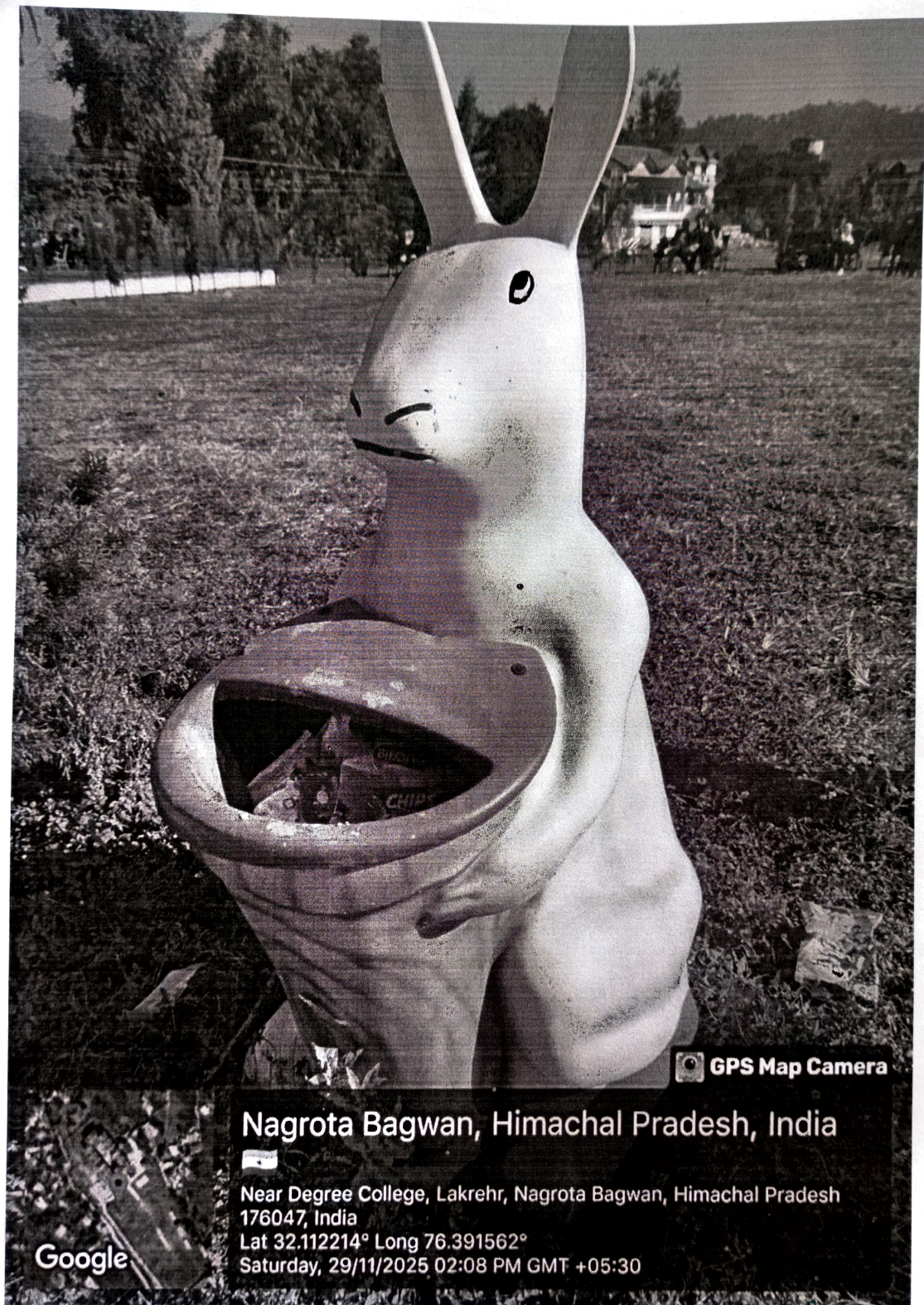
Near Degree College, Lakrehr, Nagrota Bagwan, Himachal Pradesh  
176047, India

Lat 32.112395° Long 76.391845°

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*[Signature]*  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (H.P)





GPS Map Camera

Nagrota Bagwan, Himachal Pradesh, India



Near Degree College, Lakrehr, Nagrota Bagwan, Himachal Pradesh  
176047, India

Lat 32.112214° Long 76.391562°

Saturday, 29/11/2025 02:08 PM GMT +05:30

Google

  
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Distt. Kangra (H.P)



# Report

## On

### Rainwater Harvesting

#### 1. Introduction

Rainwater harvesting (RWH) is a sustainable method of collecting and storing rainwater for later use. It helps conserve water, reduces groundwater depletion, prevents soil erosion, and supports agricultural and domestic needs. The reference images provided show an on-site rainwater harvesting structure located in **Nagrota Bagwan, Himachal Pradesh**, near Degree College, Lakrehr.

#### 2. Description of the Rainwater Harvesting Structure

Based on the photos:

##### 2.1. Surface Layout


- The area has a **cemented surface** which helps channel rainwater toward the inlet.
- Some construction materials, buckets, and vegetation are visible, indicating on-going maintenance or site activity.

##### 2.2. Storage Tank / Recharge Pit

- The images show a **rectangular underground tank or recharge pit**.
- The tank is covered with a **slab**, which is partially open in the photos.
- The interior appears to hold **standing water**, which suggests it is currently functional and collecting runoff.

##### 2.3. Cover Slab

- The slab is made of concrete.
- It is movable, providing access for cleaning or inspection.
- Proper slab covering is essential to prevent:
  - Accidental falls
  - Contamination
  - Vectors like mosquitoes

  
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Distt. Kangra (H.P.)





## 2.4. Inlet and Outflow

- The inlet area seems connected to the surrounding ground surface so that rainwater naturally flows into the pit.
- No direct piping is visible, indicating **surface-runoff-based collection**.
- The water inside the tank appears relatively clean.

## 3. Working Principle of the Structure

This rainwater harvesting system appears to be a **runoff collection and storage pit**. Its workflow likely follows:

1. **Rainwater falls** on the open land or roof surface.
2. Water flows over the **cemented slope** towards the pit opening.
3. The **underground tank/recharge pit** collects the runoff.
4. The stored water is either:
  - Used directly for non-potable purposes, or
  - Allowed to seep into the ground to **recharge groundwater aquifers**.

## 4. Benefits of This Rainwater Harvesting Setup

### 4.1. Environmental Benefits

- Increases groundwater recharge in a hilly region.
- Reduces soil erosion caused by uncontrolled runoff.
- Promotes sustainability in water-scarce seasons.

### 4.2. Community Benefits

- Provides an additional water source for:
  - Irrigation
  - Gardening
  - Cleaning
  - Construction
- Decreases dependency on municipal or bore well water.

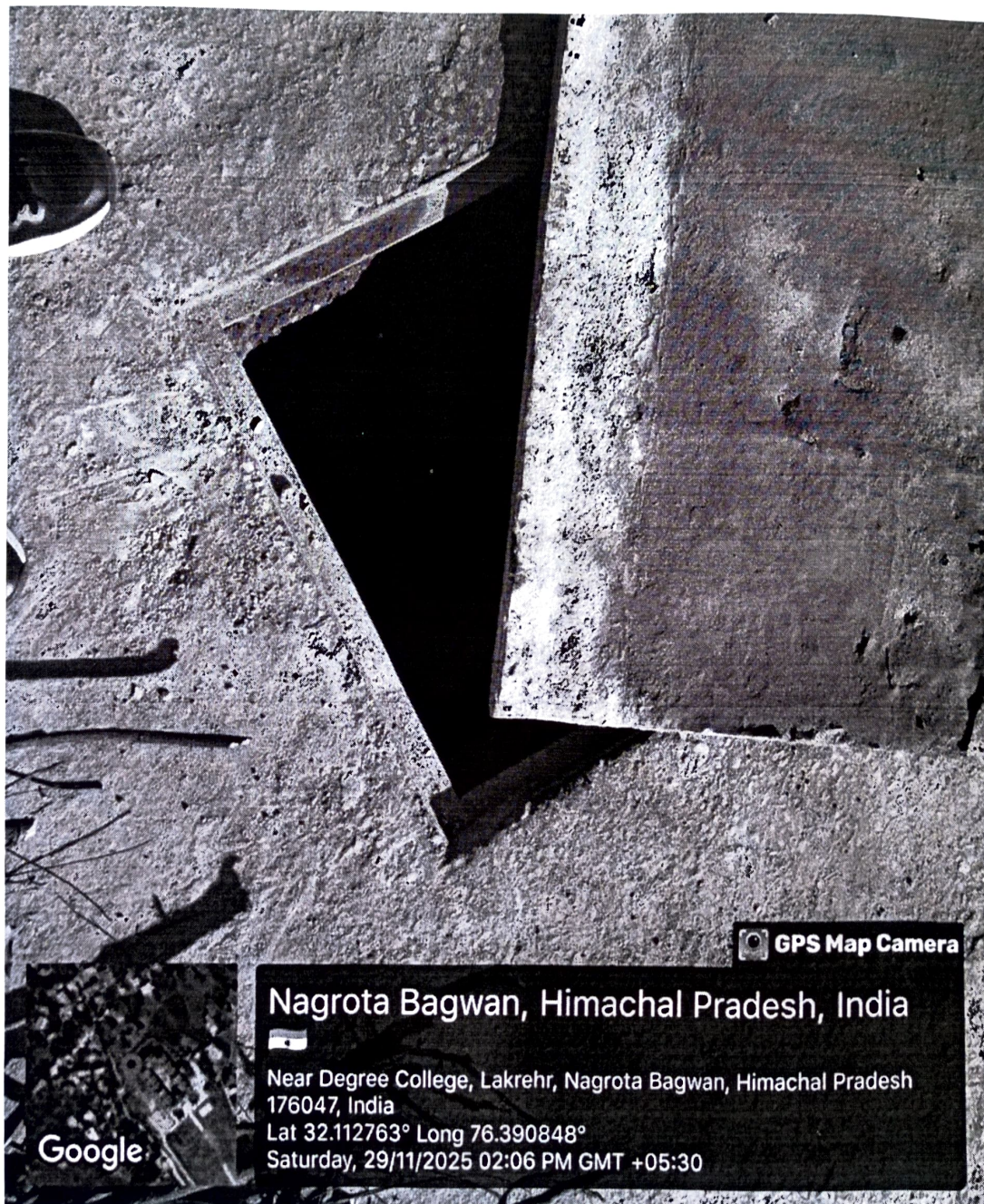
### 4.3. Cost Benefits


- Low maintenance cost.
- Saves significant expenditure on water procurement.



## 5. Conclusion

The rainwater harvesting system shown in the photographs is a practical and effective setup for capturing and storing runoff in Nagrota Bagwan. With minor improvements in maintenance and safety, it can significantly contribute to water conservation and sustainable local water management.




  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (H.P.)





## Nagrota Bagwan, Himachal Pradesh, India

Near Degree College, Lakrehr, Nagrota Bagwan, Himachal Pradesh 176047, India  
Lat 32.112762° Long 76.390845°  
Saturday, 29/11/2025 02:06 PM GMT +05:30

  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (H.P)





## Nagrota Bagwan, Himachal Pradesh, India

Near Degree College, Lakrehr, Nagrota Bagwan, Himachal Pradesh 176047, India


Lat 32.112761° Long 76.390846°

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Google



GPS Map Camera

  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (H.P.)



# Report

5.2(i)

## On

# The Solar Energy Plant

## 1. Introduction

The Government Degree College Nagrota Bagwan has installed a solar energy plant as a step toward promoting renewable energy, reducing electricity costs, and supporting environmental sustainability. The system utilizes rooftop solar panels integrated with an inverter and distribution boxes to manage solar power generation and distribution.

## 2. Objectives of the Solar Energy Plant

- To reduce dependency on conventional grid electricity.
- To promote green and clean energy on the campus.
- To lower electricity expenses for the institution.
- To create awareness among students regarding renewable energy technologies.

## 3. Components of the Solar Energy System

### 3.1 Solar Panels

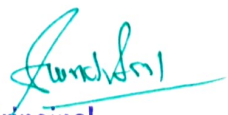
The rooftop array consists of multiple solar photovoltaic (PV) panels installed on the college building's metal roof. These panels capture sunlight and convert it into direct current (DC) electricity.

### 3.2 Solar Inverter (EVVO)

A blue EVVO solar inverter is installed inside the building. It converts DC electricity produced by the panels into alternating current (AC) electricity suitable for campus use. The inverter display and indicators help monitor system performance.

### 3.3 DC Combiner Box

The DC combiner box collects incoming DC power from multiple solar panel strings. It includes protective components like fuses, switches, and surge protection devices.



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### 3.4 AC Distribution Box

The AC distribution box manages the flow of converted AC power to the connected loads. It contains circuit breakers and safety devices to ensure safe distribution.

## 4. Working of the System

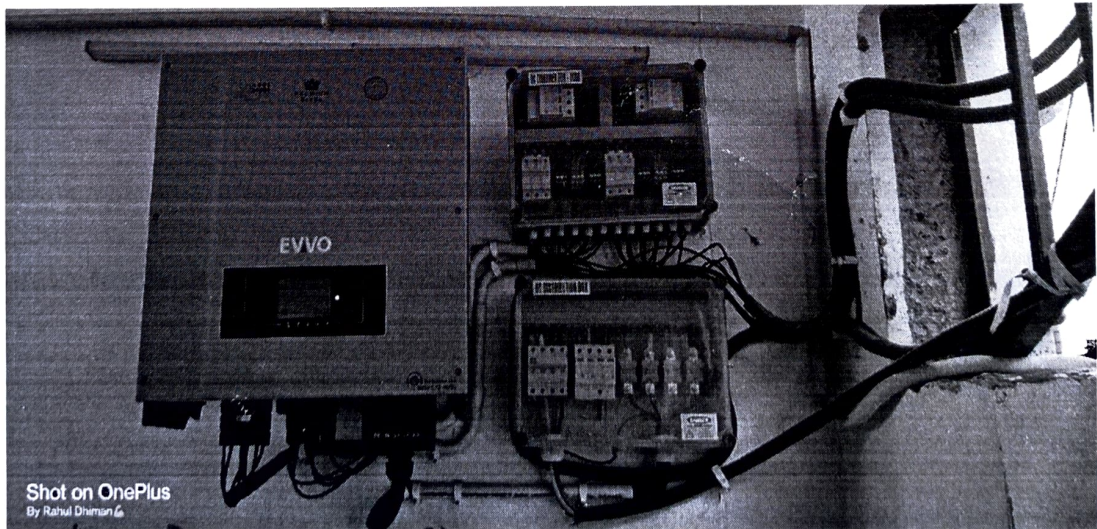
1. Sunlight falls on the solar panels.
2. Panels convert sunlight into DC electricity.
3. DC power is collected and regulated through the DC combiner box.
4. The inverter converts DC into usable AC power.
5. AC power is supplied to the college load through the AC distribution box.

## 5. Advantages of the Solar Energy Plant

- **Cost-Effective:** Significant savings on electricity bills.
- **Environment-Friendly:** Reduces carbon footprint.
- **Energy Independence:** Less dependency on external power supply.
- **Educational Resource:** Helps students learn about renewable energy systems.

## 6. Conclusion

The solar energy plant at Government Degree College Nagrota Bagwan is a valuable initiative that demonstrates the institution's commitment to sustainability and modern technology. It not only reduces energy expenditure but also serves as an educational tool for students.







Nagrota Bagwan, Himachal Pradesh,  
India 🇮🇳

497r+5mp, Lakrehr, Nagrota Bagwan, Himachal Pradesh  
176047, India

Lat 32.112798° Long 76.391646°

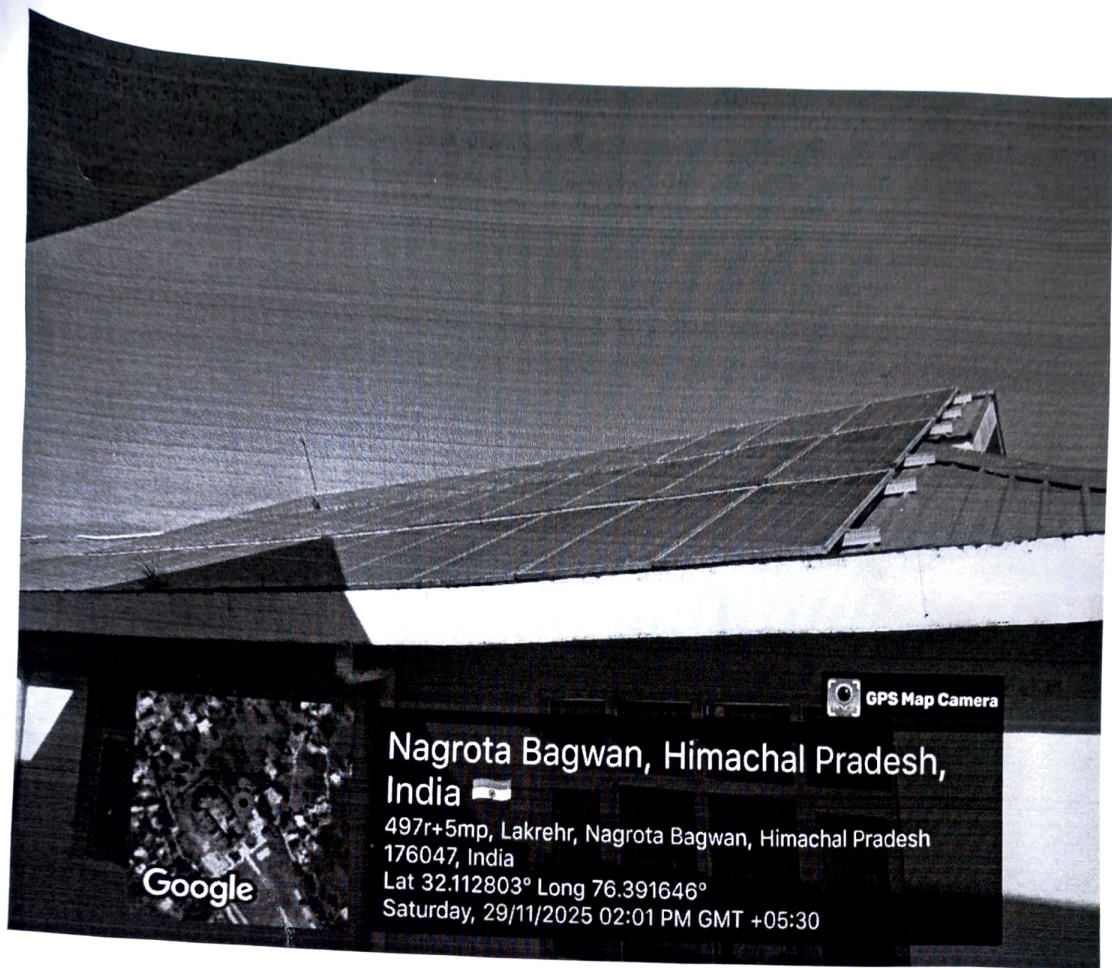
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*Sundh. Lal*

Principal

GC Nagrota Bagwan  
Distt. Kangra (H.P)

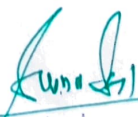




  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (H.P)





  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (H.P.)





**GOVERNMENT COLLEGE  
NAGROTA BAGWAN**  
Distt. Kangra (H.P.)-176047  
Tel.: 01892-  
251177

**Emailid: [gcnagrotabagwan@gmail.com](mailto:gcnagrotabagwan@gmail.com)**

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### **5.2.ii. Solid waste management**

1. The solid waste management deals with the installation of dust bins and their daily cleaning. The college has its own collection facility that collects the solid wastes daily from Canteen, and Departments. This helps in maintaining the cleanliness by providing an efficient, safe and regulated management of solid waste in the campus.
2. The plastic, paper and glass are collected, stored and sold to the vendors.
3. The bins for different wastes are placed at different locations in the college campus for collection of waste.
4. Incinerators are installed in women's washroom for disposing off the used sanitary pads.
5. The institution has taken steps to minimise and avoid paper usage. Printouts and photocopies are taken on both sides of the pages to avoid excess paper usage.
6. Faculty and administration staff uses old papers and envelopes for internal usages as rough work, file markers, page separators etc. One side printed paper is used as notices which are displayed on the notice boards. The paper waste after using both sides is sold to paper recyclers.

Principal  
Govt. College Nagrota Bagwan  
Kangra (H.P)

**Principal**  
**GC Nagrota Bagwan**  
**Distt. Kangra (H.P)**



(Himachal Pradesh)  
RECEIPT BOOK

N<sup>o</sup> 010351

Name Arjun of D.D. Singh Paper & Magazine

Class Library Roll No.         

Fee and Funds for the month of Deposited in Af Account

I-GOVERNMENT FUND		Rs.	P.
1. Admission Fee	...		
2. Re-Admission Fee	...		
3. Late Admission Fee	1000 Paper		
4. Tuition Fee	8 Magazine		
5. Physics Fee	...		
6. Chemistry Fee	...		
7. Biology Fee	13 x 675 = 8775		
8. Geography Fee	...		
9. Honours Fee	...		
10. Late Fee Fine	...		
11. Water and Electricity Fee	...		
12. Hostel Admission Fee	...		
13. Hostel Seat Rent	...		
14. Misc.	...		
15.	...		
16.	...		
Total (I)			
II - PRIVATE ACCOUNT			
1. H.P. University Registration Fee / Continuation Fee	...		
2. H.P. University Sports Committee Fee	...		
3. H.P. University Tournament Fund	...		
4. H.P. Youth Welfare Fee	...		
5. H.P. University Examination Fee	...		
6. Library Security (Refundable)	...		
7. Annual Function Fund	...		
8. House Examination Fee	...		
9. Magazine Fee (Annual)	...		
10. Union Fund	...		
11. Medical Fund	...		
12. Mutual Benefit	...		
13. College Fine/Special Fine/ Unfare Means Fine	...		
14. Student Welfare Fund	...		
15. Home Holiday Fund	...		
16. Identity Card	...		
17. N.C.C. Fund (Annual)	...		
18. Building Fund	...		
19. Convocation Fee (For B.A. III)	...		
20. Gen. Education Fee	...		
21. Hons. Add. Fee (University)	...		
22. Late Attendance Fee	...		
HOSTEL FUND			
23. Hostel Mess Security	...		
24. Hostel Utensil Fund (Annual)	...		
25. Hostel Common Room Fund	...		
26. Hostel Medical Fund	...		
27. Dilapidation Fee	...		
28. Servant Charges	...		
29. Misc.	...		
30.	...		
Total (II)			
Total (I+II)			

In words - Received Rs. 8775/- as detailed above  
Note - This receipt should be kept for future reference by the students.

Dated 21/1/2024

Fee Clerk



No 010366

Name. Auction of old House Exam.

Class. Answer Sheet. Roll No.

Fee and Funds for the month of Defended in pl.

## I-GOVERNMENT FUND

Rs. P.

1. Admission Fee	...	
2. Re-Admission Fee	...	
3. Late Admission Fee	Answer Sheet	...
4. Tuition Fee	6500g @ 1500.	9750/-
5. Physics Fee	...	
6. Chemistry Fee	...	
7. Biology Fee	...	
8. Geography Fee	...	
9. Honours Fee	...	
10. Late Fee Fine	...	
11. Water and Electricity Fee	...	
12. Hostel Admission Fee	...	
13. Hostel Seat Rent	...	
14. Misc.	...	
15.	...	
16.	...	

Total (I) ...

## II - PRIVATE ACCOUNT

1. H.P. University Registration Fee / Continuation Fee	...	
2. H.P. University Sports Committee Fee	...	
3. H.P. University Tournament Fund	...	
4. H.P. Youth Welfare Fee	...	
5. H.P. University Examination Fee	...	
6. Library Security (Refundable)	...	
7. Annual Function Fund	...	
8. House Examination Fee	...	
9. Magazine Fee (Annual)	...	
10. Union Fund	...	
11. Medical Fund	...	
12. Mutual Benefit	...	
13. College Fine/Special Fine/ Unfare Means Fine	...	
14. Student Welfare Fund	...	
15. Home Holiday Fund	...	
16. Identity Card	...	
17. N.C.C. Fund (Annual)	...	
18. Building Fund	...	
19. Convocation Fee (For B.A. III)	...	
20. Gen. Education Fee	...	
21. Hons. Add. Fee (University)	...	
22. Late Attendance Fee	...	

## HOSTEL FUND

23. Hostel Mess Security	...	
24. Hostel Utensil Fund (Annual)	...	
25. Hostel Common Room Fund	...	
26. Hostel Medical Fund	...	
27. Dilapidation Fee	...	
28. Servant Charges	...	
29. Misc.	...	
30.	...	

Total (II) ...

G.Total (1996) 9750/-

In words - Received Rs. .... as detailed above  
 Note - This receipt should be kept for future reference by the students.

Dated 5/2/2025

Fee Clerk



5.2 (v)

# Report

## On

# Blood Donation Camp

**Date of Event:** 28 November 2024

**Venue:** Government Degree College, Nagrota Bagwan

**Organized In Collaboration With:**

Dr. Rajendra Prasad Government Medical College & Hospital, Kangra at Tanda (Blood Centre)

## Introduction


A blood donation camp was successfully organized by **Government Degree College, Nagrota Bagwan** in collaboration with the **Blood Centre of Dr. Rajendra Prasad Government Medical College & Hospital, Tanda**. The camp aimed to promote humanitarian values, encourage voluntary blood donation, and contribute to saving precious human lives.

## Objectives of the Camp

1. To promote awareness about the importance of voluntary blood donation.
2. To facilitate safe and efficient collection of blood units for medical emergencies.
3. To instill a sense of social responsibility among students and staff.
4. To extend support to patients in need of blood transfusions.

## Activities Conducted

- A team of trained medical professionals from RPGMC Tanda set up a mobile blood collection unit at the college premises.
- Students, faculty members, and volunteers participated enthusiastically.
- Donors were briefed about the procedure and screened medically before donation.
- Necessary health parameters such as hemoglobin levels, blood pressure, and general fitness were examined to ensure donor safety.
- Refreshments and rest facilities were provided to all donors after the donation process.

  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (J.P.)


## Participation and Response

The camp received an excellent response from the college community. A significant number of volunteers came forward to donate blood, reflecting the spirit of compassion and unity. Each donor received a **Certificate of Honour** issued by the Blood Centre of RPGMC Tanda in recognition of their selfless service to humanity.

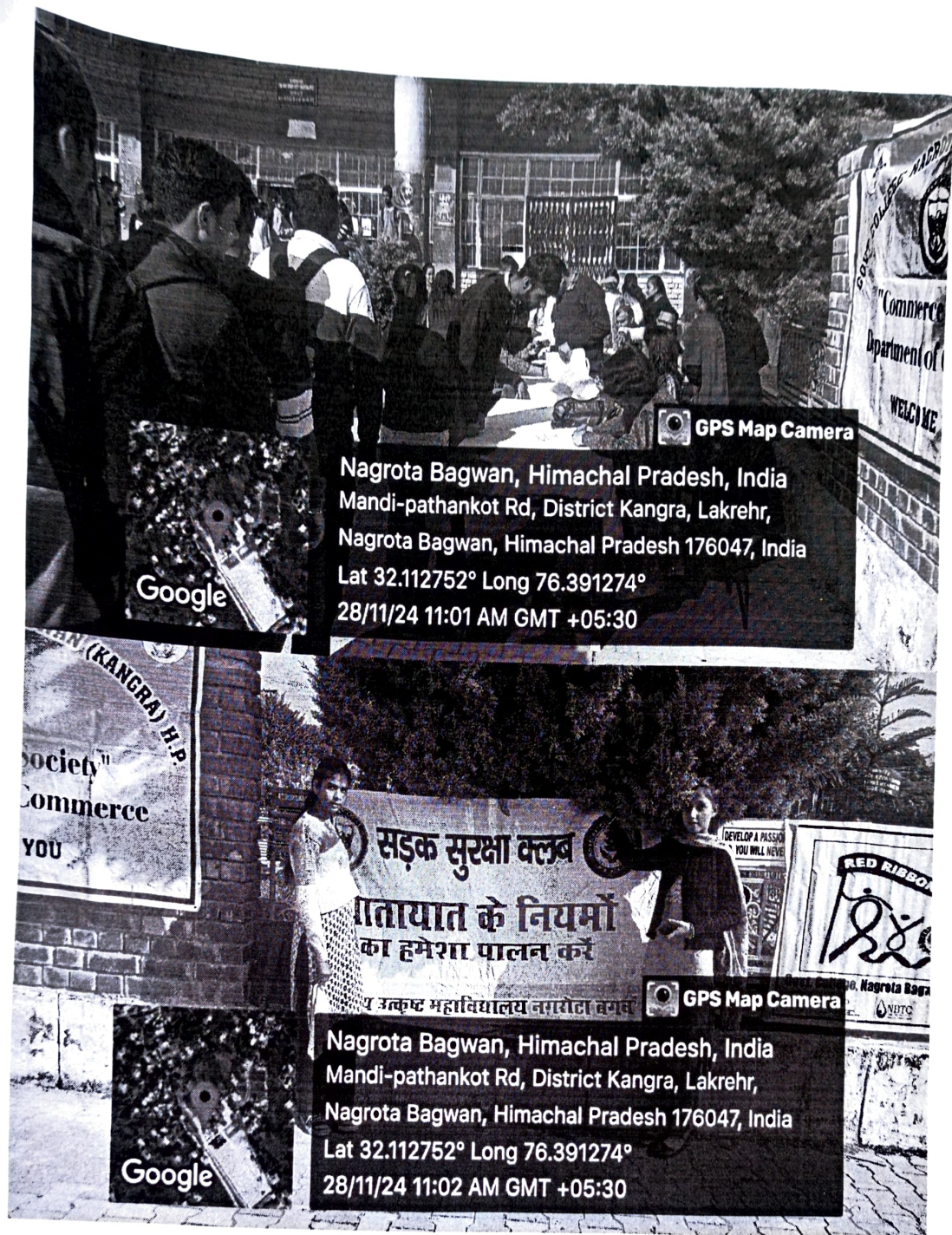
The certificates acknowledged the donors' contribution toward saving lives and appreciated their willingness to support a noble cause.


## Impact of the Camp

- The donated blood units will help provide a new lease of life to patients in critical need.
- The camp strengthened awareness about the importance of regular blood donation.
- It fostered humanitarian values among students and promoted social responsibility.

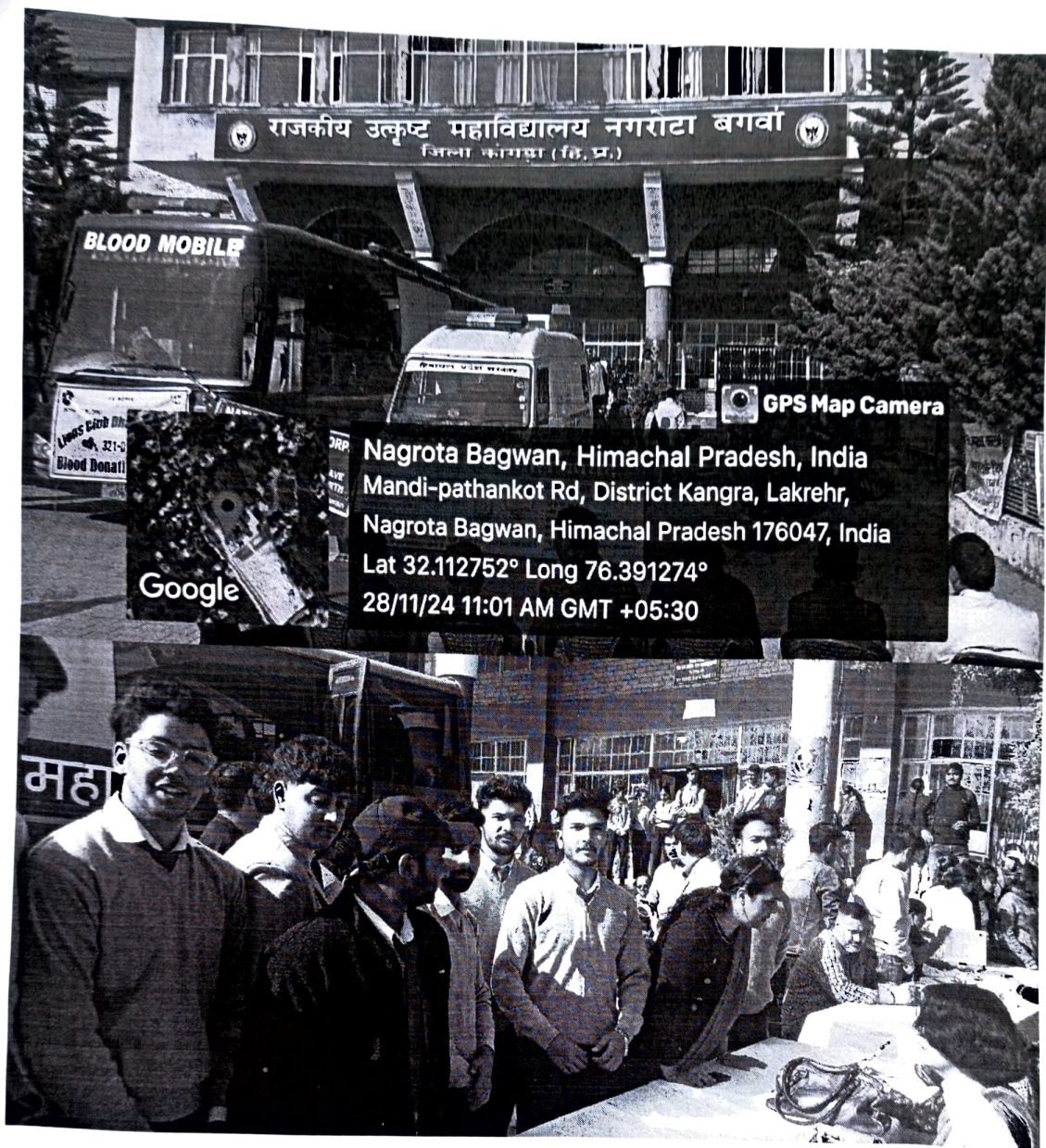
  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (H.P.)





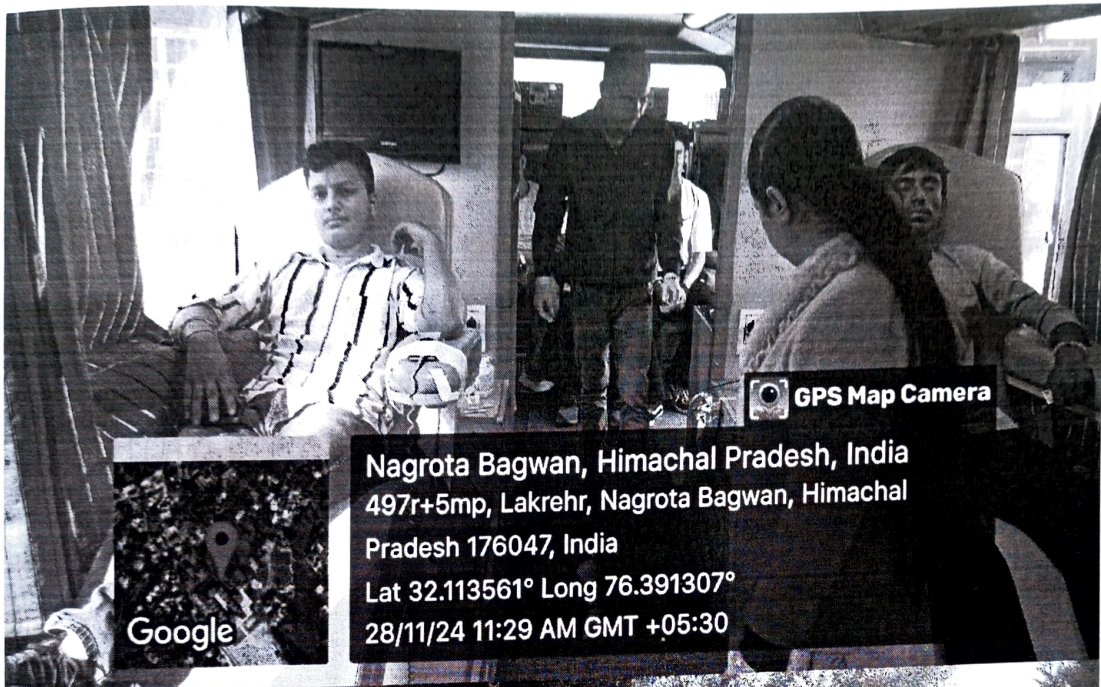
  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (H.P.)



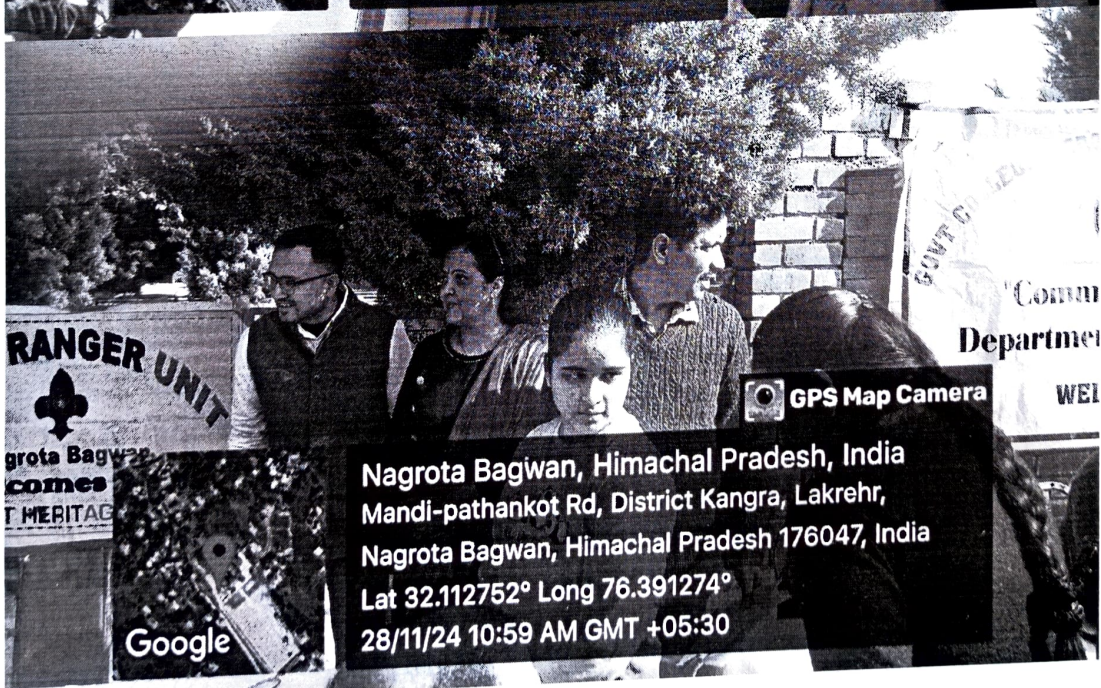


*Sandeep Soti*  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (H.P.)





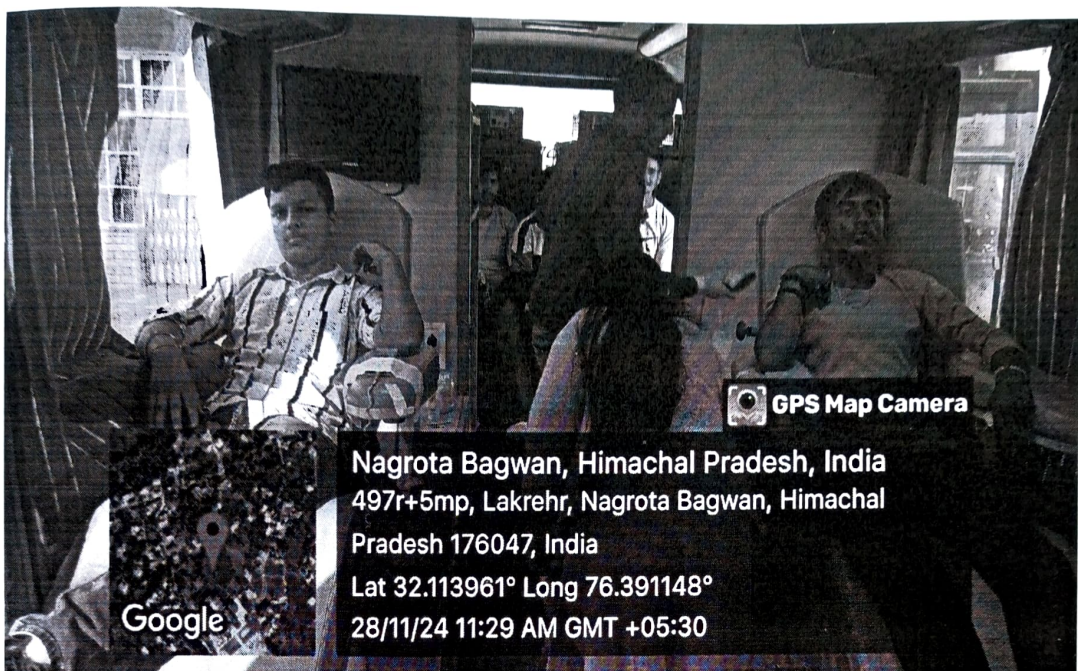
Nagrota Bagwan, Himachal Pradesh, India  
497r+5mp, Lakrehr, Nagrota Bagwan, Himachal  
Pradesh 176047, India  
Lat 32.113561° Long 76.391307°  
28/11/24 11:29 AM GMT +05:30



Nagrota Bagwan, Himachal Pradesh, India  
Mandi-pathankot Rd, District Kangra, Lakrehr,  
Nagrota Bagwan, Himachal Pradesh 176047, India  
Lat 32.112752° Long 76.391274°  
28/11/24 10:59 AM GMT +05:30

*(Signature)*  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (H.P)

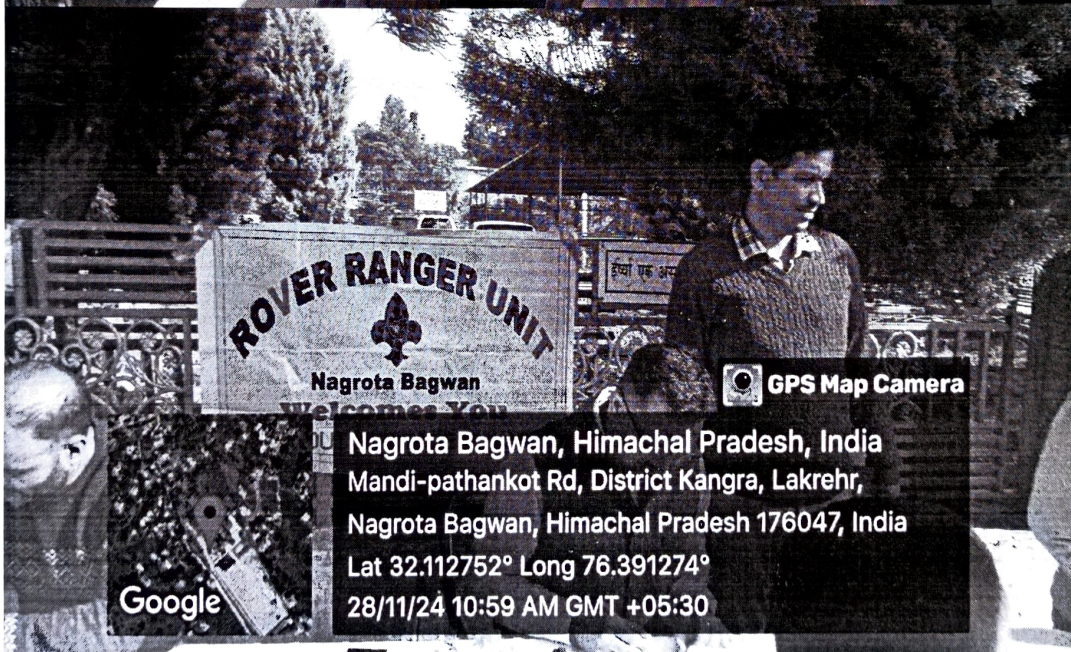




Google

GPS Map Camera


Nagrota Bagwan, Himachal Pradesh, India  
497r+5mp, Lakrehr, Nagrota Bagwan, Himachal  
Pradesh 176047, India  
Lat 32.113961° Long 76.391148°  
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Google

GPS Map Camera

Nagrota Bagwan, Himachal Pradesh, India  
Mandi-pathankot Rd, District Kangra, Lakrehr,  
Nagrota Bagwan, Himachal Pradesh 176047, India  
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28/11/24 10:59 AM GMT +05:30

  
Principal

GC Nagrota Bagwan  
Distt. Kangra (H.P)





## BLOOD CENTRE

DR. RAJENDRA PRASAD GOVERNMENT MEDICAL COLLEGE & HOSPITAL  
KANGRA AT TANDA (H. P.)-176002



Licence No. 18/NZ/19-21

### Certificate of Honour

*Pratyum*

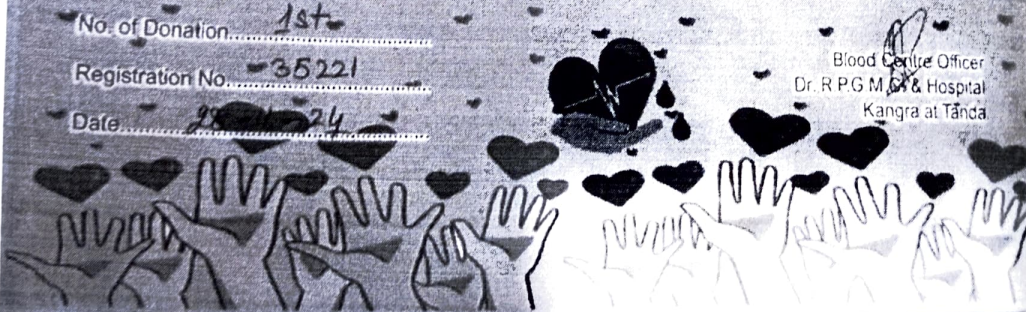
The Certificate is awarded in recognition of your selfless service to the Humanity and in appreciation of your sincerest efforts to save precious Human Life. Your donation will give a fresh lease of life to a dying heart and gift smiles to his family members.

No. of Donation.....1st.....

Registration No.....35221.....

Date.....28/1/24.....

Blood Centre Officer  
Dr. R.P.G.M.C. & Hospital  
Kangra at Tanda



*[Signature]*  
Principal  
GC Nagrota Bawan  
Distt. Kangra (H.P.)





## BLOOD CENTRE

DR. RAJENDRA PRASAD GOVERNMENT MEDICAL COLLEGE & HOSPITAL  
KANGRA AT TANDA (H.P.)-176002



Licence No. BB/NZ/10-71

### Certificate of Honour

Ayush Kaudal

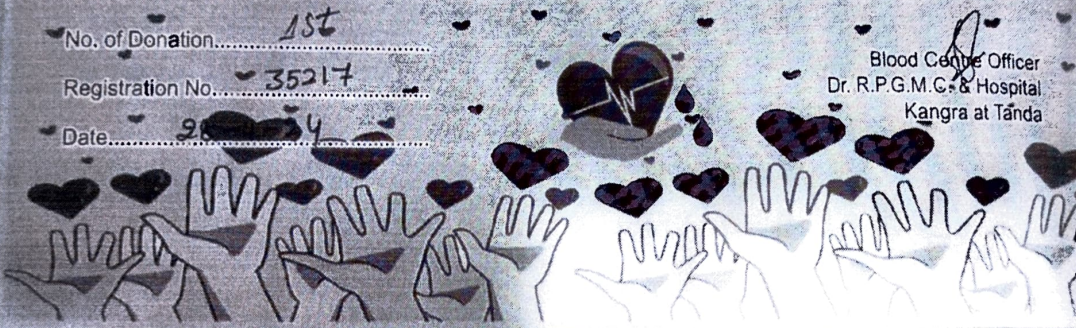
The Certificate is awarded in recognition of your selfless service to the Humanity and in appreciation of your sincerest efforts to save precious Human Life. Your donation will give a fresh lease of life to a dying heart and gift smiles to his family members.

No. of Donation..... 1st

Registration No..... 35217

Date..... 9/11/24

Blood Centre Officer  
Dr. R.P.G.M.C. & Hospital  
Kangra at Tanda



## BLOOD CENTRE

DR. RAJENDRA PRASAD GOVERNMENT MEDICAL COLLEGE & HOSPITAL  
KANGRA AT TANDA (H.P.)-176002



Licence No. BB/NZ/10-71

### Certificate of Honour

Tushar

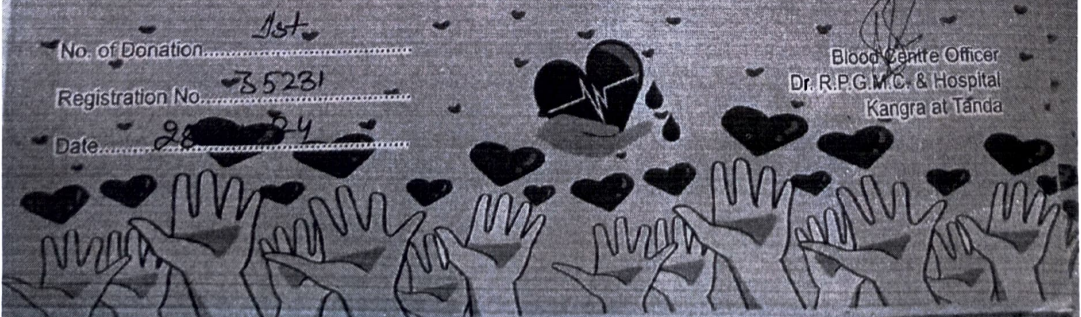
The Certificate is awarded in recognition of your selfless service to the Humanity and in appreciation of your sincerest efforts to save precious Human Life. Your donation will give a fresh lease of life to a dying heart and gift smiles to his family members.

No. of Donation..... 1st

Registration No..... 35231

Date..... 28/11/24

Blood Centre Officer  
Dr. R.P.G.M.C. & Hospital  
Kangra at Tanda



Sumit Singh  
Principal  
GC Nagrota Bagwan  
Distt. Kangra (H.P.)





## Conclusion

The blood donation camp organized by **Government Degree College, Nagrota Bagwan** was a resounding success. The collaboration with the medical team from RPGMC Tanda ensured safe and efficient execution. The event highlighted the collective strength of the college community and its dedication to humanitarian service.

The college administration expressed gratitude to all donors, volunteers, and the medical team for their invaluable contribution. Such events continue to inspire society and encourage more individuals to participate in life-saving initiatives.

*Surinder Singh*  
 P. No. 1  
 G.C. Nagrota Bagwan  
 Distt. Kangra (H.P.)

## SOCIO-ECONOMIC CONDITIONS AND DWELLING PATTERNS OF CHAMOTU VILLAGE: A SURVEY-BASED STUDY

**INTRODUCTION:** Himachal Pradesh, formed in 1971, was predominantly a rural and economically backward region with limited infrastructure such as roads, electricity, health services, and markets due to its rugged mountainous terrain. Rural socio-economic conditions in the hills differ significantly from the plains. Agriculture is still practiced through traditional methods because of small and fragmented landholdings and the difficulty of using machinery in hilly terrain. While rural areas rely heavily on subsistence agriculture, urban regions are engaged in non-agricultural activities. Agriculture plays a central role in supporting livelihoods, generating food, employment, and household savings. In Himachal Pradesh, a majority of the population resides in rural areas and depends extensively on natural resources for survival.

Chamotu village in Palampur Tehsil of Kangra district is one such rural settlement where agriculture forms the primary occupation. Topography, climate, and soil strongly influence farming practices. The style of housing—particularly slate-roofed structures—reflects adaptation to the climatic conditions. Construction materials depend on the family's economic status and availability of local materials. Thus, the rural landscape of Chamotu mirrors the interplay of physical environment and socio-economic characteristics.


Survey research provides essential quantitative and qualitative data on household socio-economic status, demographic composition, dwelling conditions, access to services, and livelihood patterns. Chamotu village (Latitude: 32°9'5.93", Longitude: 76°26'6.4", Altitude: 1532 m) is located 20 km from Dharamshala and 12 km from Palampur. The village covers 126.3 hectares, has 172 houses, and a population of 855, with an overall literacy rate of 80 percent. Scheduled Caste and Tribal populations constitute 9.12% and 30.64% respectively. About 54.5 percent of the population is engaged in work. The local language is Pahari. Nearby settlements include Jia, Dadh, Pathiar, and Majhetali.

**DEMOGRAPHIC AND OCCUPATIONAL PATTERN:** The Government of Himachal Pradesh (2001) reported that about 66.71% of the state's population depends on agriculture. Terraced cultivation dominates due to hilly terrain, and most holdings belong to small and marginal farmers. Over the decades, a shift from subsistence crops to horticulture and commercial vegetables has occurred due to favourable climatic conditions.


Several studies highlight this shift:

- **Kumar (2012)** observed increased cultivation of wheat and paddy and a decline in barley and maize, alongside a rise in vegetables, fruits, and spices.
- **Sharma (2011)** found agricultural diversification in Shimla, Kullu, Solan, and Lahaul-Spiti, particularly towards fruits and vegetables.
- **Rahut & Scarf (2012)** noted that in Himalayan regions, non-farm income contributes nearly 58% to household income, with improved education enabling households to enter high-return occupations.
- **Gautam & Anderson (2016)** found livelihood diversification beneficial only when households access high-return sectors.
- **Aghaghia (2016)** recorded rapid livelihood transformation in Kinnaur, driven by monoculture apple cultivation, though this posed long-term risks.
- **Subedi (2017)** documented livelihood changes in Mustang (Nepal), where households shifted to apple farming, vegetable cultivation, migration, and tourism-based activities.

In Chamotu village, similar patterns appear: households continue to rely on agriculture and livestock but increasingly adopt commercial horticulture such as apples, plums, and litchi. Dairy products—milk, ghee, paneer, khoya—form important income sources. Livestock ownership (cows, goats, sheep) remains a key indicator of economic well-being. Some households also use donkeys and horses for transporting goods.

  
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**DWELLING CHARACTERISTICS:** A dwelling reflects cultural heritage, economic capacity, and adaptation to local physical conditions. Heavily influenced by climate, available materials, and topography, traditional houses in Himachal vary across districts. The 2002 housing report found that over 80% of houses were built more than ten years ago, with very few recent constructions. Due to limited wood availability, traditional timber-based styles like **Kath-Kunni** and **Thathara** have declined (Sood et al., 2013). Heavy precipitation makes stone the preferred building material, though poor construction techniques increase seismic vulnerability. Bansal & Tiwari (2011) highlight the importance of slate roofs in high-rainfall areas, while Chatterjee (2017) notes diverse architectural styles—from traditional to Tudor to modern—in Himalayan settlements.

**Dwelling Types in Chamotu Village:** Chamotu features **pucca**, **kuccha**, and **semi-pucca** houses. Over 75% are pucca, nearly 20% kuccha, and the rest semi-pucca. Pucca houses have increased since 2000 due to improved income and better road connectivity. Earlier, most houses were kuccha, built from mud, stone, and timber. Today:

- **Pucca houses** use bricks, stone, cement, concrete, metal sheets, and slate.
- **Kuccha houses** have mud and clay-plastered walls with cow-dung floors.
- **Semi-pucca houses** combine mud bricks with cement-plastered surfaces.

Slate roofs dominate, sourced from the Dhauladhar range. Some houses use RCC (lanter) roofs, which also serve as spaces for drying agricultural produce. Most dwellings include a **varmamda (veranda)** and **aangan (courtyard)** used for household activities and traditional rituals. Some houses are two to three storeys high: the ground floor often serves as animal sheds, the middle for living, and the top for storing fodder. Separate **gharals** (animal shelters) are common, built with traditional materials like stone and slate.

**METHODOLOGY AND DATA SOURCES:** The study is based on a primary household-level survey conducted in February 2025 in Chamotu village. The researcher employed a **mixed-method approach**:

### 1. Qualitative Methods


- Personal interviews with elderly residents
- Discussions with village Pradhan, Patwari's assistant, and shopkeepers
- Field observations of land use, housing, and agriculture
- Documentation of cultural and historical experiences

### 2. Quantitative Methods

- Structured questionnaire administered door-to-door
- Collection of demographic, socio-economic, and infrastructural data
- Mapping and spatial analysis using **ArcGIS 10.6.1**
- Base maps acquired from the local Patwari office, using *Latha* (cloth map)

### Objectives of the Study

1. Examine the nature of households.
2. Assess availability of essential amenities.
3. Analyze demographic and occupational structure.
4. Study social infrastructure.
5. Understand socio-economic behaviour and economic conditions.
6. Evaluate sources of income and livelihood structure.



**STUDY AREA: SITE, SITUATION, CLIMATE, AND DRAINAGE:** Chamotu is situated near the Dharamshala–Palampur road (District Road 48). The settlement pattern is predominantly **dispersed**, with some **clustered** houses. Its climate is **hot and humid** in summers and **cold and dry** in winters, with an average annual temperature of 21.8°C and precipitation of 1578 mm. Vegetation includes mulberry, bamboo, siris, beul, and pine.

**Drainage:** Baner Khad, a perennial river flowing close to the village, serves as its lifeline. It supports:

- Tap water supply
- Domestic water needs
- Agricultural irrigation
- A small hydropower project producing electricity for the grid

**INTERPRETATION, ANALYSIS AND LIVELIHOOD:** Chamotu's dwellings reflect changing economic conditions. While older kuccha structures survive, newer pucca houses indicate improved income through diversified agriculture, livestock, and horticulture. Livestock rearing, particularly cows, sheep, and goats, remains vital for sustaining household income. The shift towards apples, plums, and commercial vegetables reveals a transition from subsistence-based to market-oriented livelihoods. Households with more livestock or diversified crops are economically better off, while poorer families rely solely on subsistence agriculture.

### **Socio-Economic Profile of Chamotu Village**

**1. Family Types:** Households in the village can broadly be categorized into **joint** and **nuclear** families. A **joint family** represents an extended familial system in which multiple generations live together under a common roof. This includes grandparents, parents, children, and other relatives. Such families maintain strong emotional bonds and provide mutual support during difficult situations. On the other hand, a **nuclear family** comprises a married couple and their children, forming a small and independent household unit. In Chamotu village, around **25%** of households are joint families, whereas **48%** consist of nuclear families.

**2. Family Size and Ownership:** Family size is an important indicator of social structure. In Chamotu village, families were categorized into:

- **Small (up to 4 members)** – 30%
- **Medium (5–9 members)** – nearly 50%
- **Large (10+ members)** – 20%

The data indicates that medium-sized families dominate the village structure. Regarding ownership and authority, **male dominance prevails**. Most land, livestock, and property are controlled by men, who also take major decisions pertaining to family affairs, agriculture, and household resources.

### **3. Basic Amenities**

**3.1 Water Supply:** Chamotu village has access to a **24-hour water supply** primarily sourced from the **Baner Khad**, a perennial river fed by the Dhauladhar mountain ranges.

Water is provided through public taps located outside households.

For irrigation, villagers depend on **kuhls (small water channels)**, which efficiently support agricultural activities.

Traditional sources such as **baudi** are also used for drinking.

**3.2 Sanitation:** Most households have access to proper toilet facilities. Many homes now have **attached toilets**, and wastewater from kitchens and bathrooms is managed to some extent.



However, drainage water is often discharged directly into kuhls or towards the khad, leading to environmental concerns.

**3.3 Fuel and Energy:** The village is surrounded by forest areas, which provide easy access to wood and fodder. Energy sources include:

- **Fuelwood** – used by low-income households due to no cost.
- **LPG** – widely adopted after the **Pradhan Mantri Ujjwala Yojana (2016)**.
- **Kerosene** – used minimally compared to wood and LPG.

**4. Age-Sex Composition:** Chamotu village has a total population of **855**, with **439 females** and **416 males**. Key demographic observations:

- Children aged **0–6 years** constitute **10.76%**.
- The age group **31–60 years** holds the largest share, with more females than males.
- Dependents include age groups **0–4**, **5–18**, and **60+**, relying on the productive age group (19–60).

A wide gender gap appears within the 0–6 age group, where **male children significantly outnumber female children**.

**5. Literacy:** Chamotu village exhibits relatively **low literacy levels**, with a noticeable **gender gap**.

- **Male literacy:** 88.46%
- **Female literacy:** 72.93%

Notably:

- There is **no female graduate** in the village.
- Only **two males** have completed graduation.
- Students travel to **Nagrota Bagwan, Palampur, and Dharamshala** for higher education.

Local education infrastructure includes:

- **Anganwadi**
- **Primary School**
- **High School**

Despite limited staffing and facilities, there were **no dropouts in the 5–18 age group**, indicating positive awareness towards education.

However, beliefs in **folk healing practices (jhaadh-fook)** still persist.

**6. Occupational Structure:** Agriculture and livestock rearing are the **primary occupations** in Chamotu village. Other activities include:

- Spinning and weaving wool
- Daily wage labour
- Employment under **MNREGA**
- Small-scale self-employment by men

Agriculture is mostly **subsistence-based**, using traditional methods such as:

- Cow dung manuring
- Ploughing and levelling with animal labour
- Traditional tools and practices

Both men and women participate equally in agricultural activities.

## 6.1 Crop Types

- **Kharif:** Rice, Maize, Fodder (June–September)
- **Rabi:** Wheat, Mustard, Pulses (November–April)
- **Zaid:** Cucumber, Potato, Tomato, Beans

Vegetables and seasonal fruits are grown mainly for household use.

**7. Present Socio-Economic and Natural Conditions:** Chamotu village lies **14 km east of Dharamshala**, with a landscape of plains and rolling terrain.

## 7.1 Population and Community Composition

- **Total population:** 855
- **ST:** 30.64% (Gaddis & Gujjars – pastoral communities)
- **SC:** 9.12% (Lohar, Mochi, Harijan communities)
- **Others (OBC & General):** 60.24%

Seasonal migration from Bihar and Nepal occurs for agricultural labour, though migrants don't reside permanently.

## 8. Crop Cultivation and Productivity

- **Total geographical area:** 126.3 ha
- **Cropping intensity:** 194%
- The area is fully irrigated, supporting food grains and vegetables.

**8.1 Potato Cultivation:** Potato is a major crop, grown for over 20 years due to:

1. Favourable climate
2. Adequate irrigation
3. Established marketing channels

Average yield: **20 ton/ha** (higher than State average).

Major varieties:

- **Kanchan**, Local hybrids, etc.  
Problems include **bacterial wilt**, **tuber moth**, and **high seed costs**.

## 8.2 Crop Diversification Needs

Farmers are willing to replace **25%** of potato cultivation with:

- Peas



- Cauliflower
- Onion
- Garlic
- Ginger

Key requirements:

- Improved irrigation
- Technical guidance
- Better marketing support

## 9. Farm Inputs

- **Seeds:** 90% purchased from government outlets; potato seeds often bought from private dealers.
- **Fertilizers:** Supplied mainly by **HIMFED**.
- **Organic manure:** Average 20 tons per household, mostly self-produced.
- **Agro-chemicals:** 80% from government outlets.

**10. Horticulture:** Favourable agro-climatic conditions support horticultural crops.

The region has witnessed:

- Expansion of apple and stone-fruit orchards (since 1970s–80s)
- Potential for agro-tourism due to proximity to **Himani Chamunda Devi Mountain**

**11. Animal Husbandry:** Livestock rearing forms a vital economic support system, including cattle, sheep, goats, and poultry.

Key government initiatives:

- **Subsidized rams** for sheep breeders
- **Uttam Pashu Puraskar Yojana** to reward best livestock practices

Support institutions:

- **Cattle Breeding Farm, Palampur**
- **CSK HPKV University, Palampur**

**12. Fish Culture:** No significant fish farming activities exist due to the absence of ponds or suitable water bodies.

**13. Road Network:** Chamotu has a functional network of village roads.

- **14 km from Dharamshala**
- Nearby Railway Stations: Chamunda Marg, Nagrota
- Connected with villages like Gopalpur, Pathiar, Tangroti Khas, Lakha Mandal

Farmers are satisfied with the existing road system due to short transport distances.

## 14. Food Grains

Primary food grains cultivated include:

- Wheat
- Rice
- Maize
- Barley

Support from the Department of Agriculture includes seed subsidies, fertilizers, and training programmes.

#### 15. Occupation (Based on Census 2011)

- **Total workers:** 466
- **Main workers:** 163 (35%)
  - Cultivators: 54
  - Agricultural labourers: 18
- **Marginal workers:** 303 (65%)

The majority are employed in **seasonal or part-time agricultural work**.

#### 16. Family Size (Census 2011)

- **Total households:** 172
- **Population:** 855
- **Average family size:** 4.97 persons

#### 17. Education

**Literacy Rate:** 71.7%

- Male literacy: 77.4%
- Female literacy: 66.3%

#### Schools Within Chamotu

1. **Government Primary School, Upper Dadh**
  - Classes: 1–5
  - Students: 11
  - Teachers: 2
2. **Government Middle School, Upper Dadh**
  - Classes: 6–8
  - Students: 11
  - Teachers: 3

Nearby villages offer secondary and senior-secondary education.


**Summary and Conclusion of Chamotu Village Survey:** Chamotu, a rural settlement in Kangra district of Himachal Pradesh, represents a dynamic blend of traditional livelihood patterns and gradual socio-economic transformation. With a population of approximately **855**, the village is predominantly dependent on **agriculture, horticulture, and livestock rearing**, which continue to form the backbone of its local economy. The demographic structure shows a mixed social composition comprising **Scheduled Castes, Scheduled Tribes (mainly Gaddis and Gujjars), OBCs, and General categories**, reflecting a diverse cultural setting.



Educational attainment in Chamotu stands at an average literacy rate of **71.7%**, although a significant gender gap persists, with male literacy notably higher than female literacy. The youth generally attend nearby towns such as **Nagrota Bagwan, Dharamshala, and Palampur** for higher education, indicating improving educational aspirations but limited local facilities. The occupational pattern reveals that a large portion of the workforce remains engaged in **agriculture**, often supplemented by marginal or seasonal employment, including MNREGA and wage labour. Farm practices are primarily traditional but show increasing diversification toward **vegetables, fruits, and cash crops**, supported by improved irrigation from the Baner Khad.

Housing structures in Chamotu retain the **traditional Himachali architectural character**, with stone, slate, and mud used extensively. Over time, **pucca houses** have also increased, reflecting improved economic conditions. Infrastructure development has progressed steadily—roads, transport connectivity, and access to basic amenities such as water supply and sanitation have strengthened the village's overall living standards. Despite these positive developments, certain challenges persist. **Gender disparities in education**, limited employment avenues outside agriculture, dependence on traditional labour-intensive practices, and environmental pressures continue to influence socio-economic growth. The presence of pastoral communities and seasonal migrant labour further shapes the village's socio-cultural landscape.

In conclusion, Chamotu exemplifies a **typical mid-altitude Himachali village** navigating the transition from a traditional subsistence-based system to a more diversified and development-oriented rural economy. While the village has made substantial progress in infrastructure, education awareness, and agricultural modernization, achieving **sustainable and inclusive growth** will require continued focus on women's empowerment, skill development, and employment diversification. Chamotu stands as a resilient community committed to preserving its cultural heritage while adapting to emerging opportunities and developmental pathways.

  
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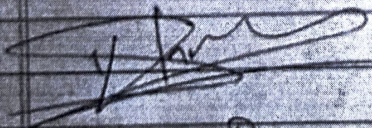
3<sup>rd</sup> Day of NSS Camp

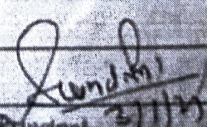
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The 3<sup>rd</sup> Day began with the daily routine of Morning prayer, Yoga activities, Thought of the Day Report, dictation of the National Anthem.

Half Unit was sent to the adopted village 'Hatusa' for the village adoption programme. The Pradhan of the village & students cleaned several areas of the ward & collected garbage for disposal. The other half unit completed the work of flower beds in the college campus & beautification.

After the lunch, a session was organised by "Asst Prof. Karlesh Shrestha" about the "Purpose of Life". In the evening session, tea was served & cultural items like dance, folk song were organised.

  
N.S.S. P.O.

  
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*[Signature]*  
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