

Palli Residential Energy Utilization and Waste Generation Survey by Regional Coordinating Institute Indian Institute of Technology Jammu

Palli, a small hamlet located in the Samba district of UT of Jammu and Kashmir, made history on 24th April 2022 when honorable Prime Minister of India, Sh. Narendra Modi declared the panchayat as India's first carbon-neutral panchayat. Keeping in line with this vision, Ministry of Panchayati Raj and Samba district administration deputed the work of surveying and analyzing the residential energy utilization and waste generation in Palli panchayat to the Unnat Bharat Abhiyan (UBA) Regional Coordinating Institute (RCI): Indian Institute of Technology (IIT) Jammu. The first meeting was called by Ministry of Panchayati Raj and state administration of Samba and the same was attended by the Unnat Bharat Abhiyan RCI team of IIT Jammu headed by Dr. Gaurav Bhaduri, Dr. Prasun Halder and UBA staff Mrs. Jeyoti Kaul. This meeting was also attended by MoPR officials and state administration. Some of the dignitaries from all over India including Prof. V K Vijay, National Coordinator, Unnat Bharat Abhiyan.

This report presents the details of the conducted survey and the analyzed outcomes for assessment of residential energy utilization and waste generation in Palli panchayat. The Participating Institutes (PIs): Dogra Degree College and Government Polytechnic Jammu under RCI IIT Jammu volunteered to conduct the field survey. Under the guidance of Mr. Balwant Singh, PI Coordinator, Dogra Degree College, and Mr. Subhash, PI Coordinator, Government Polytechnic Jammu, two teams of 23 and 18 students, respectively, conducted the 'Energy Survey' and 'Waste Survey' of 724 households in the entire panchayat.

The team of IIT Jammu then first accomplished the mammoth task of digitizing the entire data from the physical copies of the form. This was done with the help of 16 student volunteers from IIT Jammu under the guidance of Prof. Rakesh Singhai, Dean, Outreach and Continuing Education Programs, and RCI Coordinator, IIT Jammu. After the digitization of the data, it was compiled and analyzed thoroughly by Dr. Riya Bhowmik, Asst. Prof. Civil Engg. Dept., and Associate Dean, Outreach and Skill Development Programs and Mrs. Jeyoti Kaul, Project Staff, UBA, IIT Jammu. The present report provides detailed information about the state of energy access, energy use patterns, and various modes of waste generation in Palli homes. The analyzed records of survey were presented before the state administration by Dr. Riya Bhowmik.

Another Survey for Vehicular GHG (CO₂) Emissions in Palli Panchayat:

UBA team of IIT Jammu received another request from the Department of Rural Development and Panchayati Raj early in the month of December 2022 for conducting a survey to assess the vehicular Greenhouse Gas Emissions, especially, Carbon dioxide, in the village Palli. This report presents the details of the conducted survey and the outcomes of the analysis of the surveyed data

Details of Survey for the present survey, the UBA team utilized the data of contact details of the resident household heads already available from the previously conducted survey. Mrs. Jeyoti Kaul, Project Associate, UBA, IIT Jammu led a team of student volunteers of IIT Jammu to conduct the survey telephonically. All 641 household heads were called and asked for their details of personal or commercial vehicles and their corresponding usage per month. The survey took nearly half a month to complete. Out of 641 households, 244 heads confirmed using petrol based two-wheeler vehicles, 81 heads said yes to using petrol- or diesel-based four wheeler vehicles, while only 17 heads confirmed plying some mode of commercial vehicles. On the bases of data a report was presented to Samba administration with in the scheduled time.

The data was shared with state administration in two reports, Report-1 and Report-2



Palli, J&K: India's First Carbon-Neutral Panchayat
Residential Energy Utilisation and Waste Generation Survey

Prepared by

Unnat Bharat Abhiyan Participating Institutes

*Regional Coordinating Institution,
Jammu and Ladakh UT*

*Participating Institutions,
Jammu and Ladakh UT*

**Indian Institute of Technology
Jammu**

**Dogra Degree
College**

**Govt. Polytechnic
Jammu**

Dr. Riya Bhowmik
PI Coordinator

Mr. Balwant Singh
PI Coordinator

Mr. Subhash
PI Coordinator

Mrs. Jeyoti Kaul
UBA Project Staff

Prof. Rakesh Singhai
RCI Coordinator

July 2022



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*Survey for Vehicular GHG (CO₂) Emissions in Palli
Panchayat*

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**Unnat Bharat Abhiyan Regional Coordinating Institute
Indian Institute of Technology Jammu**

Dr. Riya Bhowmik
PI Coordinator

Mrs. Jeyoti Kaul
UBA Project Staff

Prof. Rakesh Singhai
RCI Coordinator

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