

## **REPORT OF BIOSCIENCE TRIP**

The bioscience trip (Botany, Zoology and Biotechnology) for the students of 6<sup>th</sup> and 4<sup>th</sup> semester (77 students) was conducted on 13.10.2021 to **Kashmir University Botanical Garden and KASH Herbarium**, Department of Botany Hazratbal Srinagar. In reference to order No. WCP/503 Dated: 12/10/2021 the following staff members were engaged for the smooth conduct of trip.

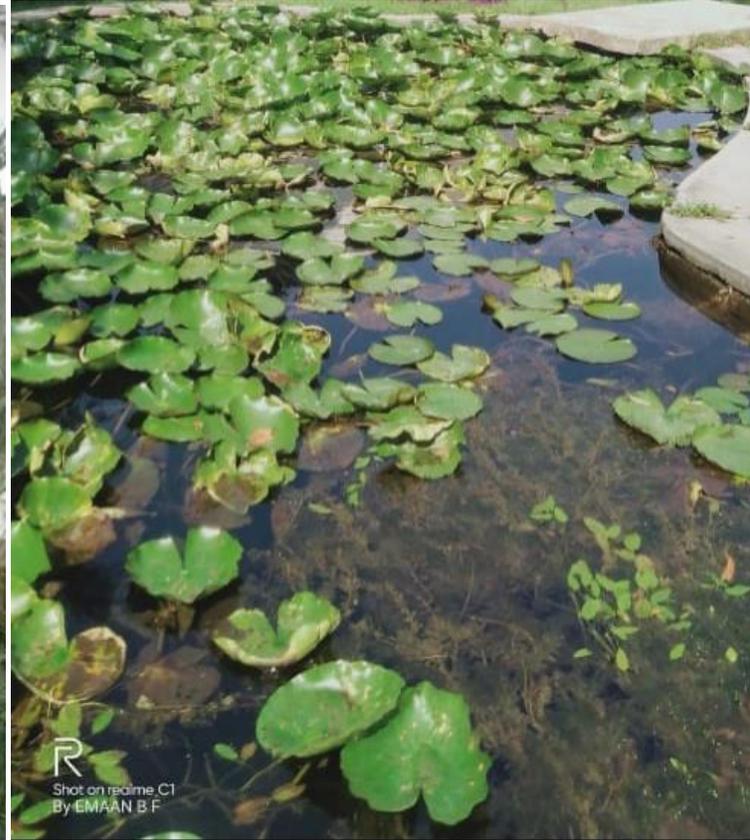
1. Dr Tariq Ahmad Dar, HOD Botany
2. Dr Gulzar Ahmad Bhat, Lecturer Zoology
3. Dr Bilal Ahmad Bhat, Lecturer Botany
4. Mr. Ashiq Ahmad (Driver)
5. Mr. Riyaz Ahmad (Driver)
6. Mrs. Neelofar

The students reported to the college at 9 am with proper college uniform and face masks. The students and staff left the college at 9.15 am in two college buses and after a travel of about one hour and 45 minutes reached Department of Botany, University of Kashmir, Hazratbal Srinagar. The students were received by the staff of Centre for Biodiversity and Taxonomy and the introduction about the Centre and Botanical garden was given by Dr. Anzar Ahmad Khuroo, Sr. Assistant Professor Botany, Kashmir University. The students were divided in three batches each comprising of about 25. Dr Akhtar Husain, Curator of KASH herbarium introduced the students about herbarium and practically demonstrated how to make a herbarium and what the different activities are carried therein. Mr. Bilal Ahmad, staff member of KASH Herbarium showed the students how to arrange specimens of species and genera in a herbarium.

Students were acquainted with different plant species of the botanical garden like *Pinus roxburghii*, *Pinus wallichiana*, *Betula utilis*, *Cedrus deodara*, *Picea smithiana*, *Taxus*, *Asparagus*. Students also visited the herbal section and were acquainted with medicinal plants like *Inula racemosa*, *Artemisia absinthium*, *Gentiana*, *Rheum*, *Berginia*, *Saussurea*, *Olea europaea* etc. The students and staff were served refreshment (1 juice pack, 2 bananas and samosa). On return students visited the Harvan and Shalimar gardens and reached college back safely at 5.40pm.









**GOVERNMENT DEGREE COLLEGE FOR WOMEN PULWAMA**

**DEPARTMENT OF GEOGRAPHY**

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**Govt. Degree College for Women Pulwama**

**REPORT OF GEOGRAPHICAL FIELD STUDY TOUR  
TO  
KHREW INDUSTRIAL AREA (J & K)**

**Submitted by:  
DEPTT. OF GEOGRAPHY**

**Dated:  
12 - 10 - 2019**

*Tour Incharge*

# **GOVERNMENT DEGREE COLLEGE FOR WOMEN PULWAMA**

## **DEPARTMENT OF GEOGRAPHY**

As per the curriculum of University of Kashmir, the Department of Geography of Government Degree College for Women, Pulwama, had arranged a one-day educational field tour on 12.10.2021 for completing the field work of 2<sup>nd</sup> semester students to the Khrew industrial area which is located in the Pulwama district of Kashmir and which is situated about 23 Km away in SE of Srinagar. Khrew town has twenty more adjacent hamlets like Shar Shali, Ladoo, Andrusa, Gundbal, Pakhribal, Mandakpal, Satpukhran, Wuyan, Bathen, Nagandar, Wahab Sabun etc. with population of 18820, Males constitute 54% of the population and females 46%. Khrew has an average literacy rate of 47%, lower than the national average of 65.8%: male literacy is 22.08%, and female literacy is 24.02%. In Khrew, 20% of the population is under 15 years of age (2011 India census).

S. No.	Particulars	Details
1.	Nature & Size of the Project	Clinker and Portland Cement plant having production capacity @ 1200 MT/day or 396000 MT/annum
2.	Village	Bhatayan
3.	Tehsil	Pampore
4.	District	Pulwama
5.	State	Jammu and Kashmir
6.	Latitude	34°03'09.13"N
7.	Longitude	75°01'07.96"E
8.	Total Plant Area	3.89 Hectares/9.6 Acres
9.	Greenbelt / Plantation Area	1.28 Hectares/ 3.2 Acres, i.e. ~33% of the project area will be covered under greenbelt/ plantation

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The touring party comprised of 88 students and 4 staff members. The particulars of the team of staff members are provided below:

S.No.	Name of the Staff Member	Designation	Department
01	Dr. Mohd Maqbool Bhat	Tour Incharge	Geography
02	Dr. Suhail Ahmad Wani	Lecturer	Geography
03	Mr. Ashiq Ahmad	Driver	Office
04	Mr. Rayaz Ahmad	Driver	Office

The college convenor of tour had arranged 2 buses to transport the touring party to their destination.

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The party, after ensuring that all those who had registered their names for the trip had arrived, left the college campus for its journey at 8. 30 am. Principal Prof. M.A Lone who could not accompany the party on account of their tight schedule in connection with administration, made the required arrangements for the touring party with zeal and were kind enough to provide the important instruction to the party before seeing it off.

Geography, being essentially an empirical science, uses varied information much of which is collected through careful and systematic field surveys which constitute. Even the fleeting glimpses of geographical features have profound significance as they, besides arousing a keen interest in the minds of budding geographers, give them the first-hand information about geographical facts, thus augmenting the information they are already provided in the class room. The students, during the geographical field trip, observe, analyse and evaluate various

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geographical phenomena. All along the way the students were shown a large number of varied geographical features both geomorphic as well as socio – cultural.

At Gallander, the students were told about the extra-ordinary Probocidean skull which was reported by the students and staff of the geology department of GDC Sopore and which was later unearthed by Dr G M Bhat (Jammu University).

Soon afterwards the students were shown largest power receiving station of Pampore and the world famous saffron growing karewas of Pampore. These karewas are primarily lacustrine deposits comprising of different silt formed during Pleistocene period some 1.5 million years ago. They contribute significantly to the state economy on account of the cash crop like saffron and various orchards to which these are devoted too.

We started heading towards Bhatayan village by bus and celebrated the journey by cultural Programme and Kashmiri songs performed by students.

On entering Khrew, the students were shown Triassic Limestone which forms the treasure house for that area. These possess huge caverns which store enormous springs. These Triassic Limestones were found some 225 million years ago.

We reached our destination Bhatayan village, the last village in the border of Pulwama-Srinagar at 11:30 am and started our socio-economic and household survey.

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Another team worked on GPS, long and cross profile of the area. The village consists around 175 households. The people were badly affected by pollution caused by cement industries but recovered themselves with community effort, NGO and govt. Grand. The village has a primary school in which the enrollment is about 100 and only two teachers are teaching them and have high school that too have good number of enrollment but most of the teachers to teach come oftenly come to school and a Health Centre is also available here. About 75% people are working in Cement Industries, and 25 % are agricultural farmers.

The students were also shown various erosional and depositional features produced by running water like cascades, rapids, meanders, V-shaped valley, gorges, pot-holes, bluffs, alluvial fans and piedmont alluvial plains.

They were also shown evidences of various types of mass movement like soil creep, slides, falls and slump at different sites. For this purpose, they were instructed

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to observe the bent stems of the trees just above the earth's surface in addition to various mountain slopes adjacent to the road on the either side.

The party had lunch at 2:00 pm in Sports field of Bhatayan rather hurriedly and soon the students put on the quarry of knowledge again and were taught impact of cement Plants to the adjacent area. They were shown some important Cement plants like JK Cement Plant, MAX Cement Plant, HK Cement Plant etc. They were also told about the process of cement manufacturing and various raw-materials used for cement manufacturing.

In the factory, cement is manufactured on a large scale, and during the manufacturing process and loading large quantities of cement dust is discharged into the atmosphere. The main raw material over here for cement industry includes limestone ( $\text{CaCO}_3$ ), clay, sandstone ( $\text{SiO}_2$ ), bauxite ( $\text{N}_2\text{O}_3$ ) and gypsum ( $\text{Ca}_2\text{SO}_4 \cdot 2\text{H}_2\text{O}$ ). The dust falls on the adjoining areas and settles on the leaves, roof tops as well as on the ground deteriorating the quality of soil, horticultural species and the world-famous cash crop of Saffron. In this area many mini cement plants are also running thus adversely affect the soil, environment, vegetation and health in these and the surrounding areas.

On the basis of this study, it is found that the vegetation of the area is found to be affected by cement dust, which might be due to the presence of varied pollutants in the cement dust of the study area. From the observations made during the study it appeared that the cement factory is responsible for the substantial amount of dust in the atmosphere resulting in damage not only to the air quality but also to soil and vegetation. The need for appropriate device installation and development of green belts in the area is highly recommended in the area to mitigate the increasing dust emission from cement factories.

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The industry would generate only domestic effluent from its industrial premises. The quantity of domestic effluent generation would be around 9 m<sup>3</sup>/day. The average wastewater characteristics will be: BOD – 200-250 mg/l, COD – 450-500 mg/l, TSS – 300-400 mg/l, TKN (as N) – 30-35 mg/l, and total phosphorus (as P) – 10-12 mg/l. The wastewater would be treated in a septic tank before its utilization on land for irrigation purposes.

Adverse health effects of cement plant exposure have been found in occupational contexts but are less defined for the general population living near plants. The studies were very heterogeneous in study design, measure of cement plant exposure, outcome detection, measure of association and adjustment for confounding. Almost all the studies found positive associations between cement plant exposure and respiratory diseases and symptoms. An excess risk of cancer incidence and mortality in both children and adults mainly concerning respiratory tract cancers was also reported in some areas. Higher values of heavy metals and of a biomarker of renal toxicity were found in the exposed compared to unexposed populations. In conclusion, there is some evidence for a possible role of cement plant exposure on health adverse effects.

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*Pollution from cement production in Khrew Pulwama*

The industry would not generate any solid wastes as whole of the process rejects solid wastes would be reused for the production of cement.

The environmental management plan (EMP) is meant to ensure that the adverse residual environmental impact, if any, due to the regular operations of the project, are completely checked or, otherwise, minimized. Further, the EMP also warrant compliance with all the statutory requirements applicable to the project, from time-to-time right from the conception. While evolving an effective and feasible EMP, due consideration has been accorded to the technological as well as the economic aspects. The EMP addresses the following facts;

- 1.The appropriate mitigation measures.

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2. The monitoring of the state of physical environment, internal as well as external to the industry.
3. Steps to augment environmental capacity building.
4. The house-keeping practices.
5. The emergency/disaster management.
6. The state of socio-economic issues

The plan is expected to cater to the environmental and other related issues of the area, comprehensively, and manage its environmental performance. From the observations made during the study it appeared that the cement factory is responsible for the substantial amount of dust in the atmosphere resulting in damage not only to the air quality but also to soil and vegetation. Therefore, appropriate mitigation measures are required to be taken in order to control the pollution in the area which includes:

- a) Development of a thick green belt around the periphery of each cement factory.
- b) Provision of macadamization/development of better roads within and around the premises of cement factories.
- c) Appropriate air pollution control devices to be installed and regularly checked.
- d) Observance of standards of permissible limits for various constituents as prescribed by SPCB and CPCB.

In conclusion, this work reviews the effect of air and water pollutants from cement production on humans, plants, and its environment. There is satisfactory evidence to link the negative health impact of cement production on public health.

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Cement manufacturing involves the significant production of SO<sub>2</sub>, NO<sub>x</sub>, and CO, which are connected to adverse health effects on humans. Sensitive populations such as infants, the aged, and persons having lung ailments including asthmatics, emphysema, or bronchitis, are seen to be most affected. Consequently, in addressing this challenge, growing interests in enacting carbon capture, usage, and storage in the cement industry are expected to alleviate the negative environmental impact of cement production. Still, no carbon capture technology is yet to achieve commercialization in the cement industry. Nonetheless, huge advancement has been made in recent years with the advent of vital research in sorption-enhanced water gas shift, underground gasification combined cycle, ammonium hydroxide solution, and the microbial-induced synthesis of calcite for CO<sub>2</sub> capture and storage, all considered sustainable and feasible in cement production.

## **Vocational Skill based Training Programme**

Patron: Principle Prof Mushtaq Ahmad Lone

Organizer: Prof Nazneen Jan Qurashi

### ***1. Title of the practice -***

Women Empowerment Training Programme

### ***2. Objective of the practice -***

To create a healthy attitude among girl students of the college towards work and life. -To Increase individual employability. -To decrease the irrelevance between the demand and the supply. -Efforts to build students to prepare for work and subsequent education are far from realized. -These training establishes a link between competency -training and the implications for the workforce. -The courses are related to productivity, preparing individuals for creative jobs and employment potential. -The need of the hour is to impart vocational education in order to appear expertness in the field of technical know -To earn a money from such courses

### ***3. The Context***

With reference to the letter no AU/KVK/ETC/ WT-224 dated 29-10-2021. The college NSS program Officer Prof Nazneen Jan Qurashi carried out a skill development training program in collaboration with Krishi Vigyan Kendra Malangpora Pulwama under the prime patron ship of the college Principal Prof Mushtaq Ahmad Loan on 29th November 2021. In the training program, 20 girl students of the college from the different UG semesters were deputed to attend skill development program at the head quarter of KVK Malangpora Pulwama. The training program carried for the duration of 14 days. The trainees were given training in different internal decoration items. Different demos were given on the making of decorative items made out of home wastes. The students were given refreshments by the concerned department and were given to and fro transport facility by the college The whole training program remains relevant and carried with high enthusiasm by the students.

## **Participation**

### **Name of Student (from 1st Semester)**

Miss. Nazakat Yousuf

Miss. Tanzeera Feroz

Miss. Iqra Manzoor

Miss. Sadat Un Nisa

Miss. Iqra Akber

Miss. Tanzeela Mushtaq

Miss. Gousia Rasool

Miss. Foozia Rashid

Miss. Ifla Manzoor

Miss. Bisma Jan

Miss. Ishrat Jan 3066

Miss. Mehrin Nisa

Miss. Tabasum Jan

Miss. Towheeda Abdullah

Miss. Shayista Nabi

Miss. Ishrat Jan

Miss. Izzat Un Nisa

Miss. Nazima Yousuf

Miss. Mehvish Jan

Miss. Simran Gulzar

### ***Relevance***

Vocational Education helps people in the better performance of their jobs as they acquire a great learning experience. Working professionals get a chance to hone their skills while making money.

Vocational education and training is a sort of introduction as it gets employees ready for the workplace which comes in handy while performing various tasks.

Due to the nature of the skills it imparts, a student doesn't consider it a futility as compared to academic education.

Vocational Education as the term itself denotes the students are specialized and therefore they have more chances of employment as compared to others.

Many students who are in a dilemma whether they should attend college or not, Vocational education really opens a completely new door.

It makes an individual responsible and independent whereas those who study regular courses lack in this sphere.

### **Advantages of skill Development**

- Expansion of knowledge base
- Greater professionalism
- Improvement in product
- quality and service
- Greater talent pool
- Improvement in employment scenario

*Submitted by Prof Nazneen Jan Quraishi*



























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# Project tour report

## Department of Chemistry

On 6th of October 2021 Deptt. of chemistry organized a field trip to Betab valley Pahalgam. The trip was meant for Students of 6th sem. Twenty three students registered their names. Five staff members accompanied them (list appended).

The students were divided into two groups, Group A comprising 11 students and Group B comprising 12 students. During the trip both the groups carried out critical observation in reference to chemistry with proper guidance from teacher incharge wherever necessary. Both the groups submitted their reports.

**Office of the Principal**  
**Govt. Degree College for Women**  
**Pulwama**

Fax/Phone: 01933242370      www.gdcwpulwama.edu.in      Email: gdcwomenpulwama@gmail.com  
No: WCP/460      Dated: 05/10/2021

A group of 24 students of 6<sup>th</sup> semester of this college accompanied by five staff members is proceeding for 01 day educational project work tour in Chemistry on 6<sup>th</sup> of October 2021 to the Pahalgam area. The details are given below:

S.No.	Name of Student	Class Roll No.
1.	Iqra Bashir	802
2.	Iram Irshad	803
3.	Saika Akhter	804
4.	Syed Ifra	805
5.	Humaira Jan	806
6.	Gazalla	810
7.	Mehak Jan	819
8.	Nusrat Maqbool	820
9.	Navsheena Nisar	825
10.	Sadaf Javaid	826
11.	Irtiza Maqbool	827
12.	Fouzia Hassan	829
13.	Syed Farhana	868
14.	Afshana Hamid	881
15.	Snober Aijaz	884
16.	Birjees Wani	902
17.	Ibrat Manzoor	909
18.	<del>Raqiyya Nabi</del>	921
19.	Mehak Bazila	923
20.	Sheetal Sharma	929
21.	Ishratul Aalam	933
22.	Qurat Ul Ain	944
23.	<del>Simran Shabir</del> Aasiya	945
24.	Qirat Riyaz	934
<b>Staff Members</b>		
25.	Prof. Shafiq Ahmad Andrabi	
26.	Abdul Majeed Sheikh	
27.	Mohd. Ashraf	
28.	Mrs. Nilofar	
29.	Mrs. Fancy	

**Principal**

