SUSTAINABLE DEVELOPMENT GOAL 6

KINNAIRD COLLEGE FOR WOMEN
REPORT ON

SUSTAINABLE DEVELOPMENT GOAL 6

Clean Water and Sanitation

GOAL 6: CLEAN WATER AND SANITATION

Access to safe water, sanitation and hygiene is the most basic human need for health and well-being. Billions of people will lack access to these basic services in 2030 unless progress quadruples. Demand for water is rising owing to rapid population growth, urbanization and increasing water needs from agriculture, industry, and energy sectors.

The demand for water has outpaced population growth, and half the world's population is already experiencing severe water scarcity at least one month a year. Water scarcity is projected to increase with the rise of global temperatures as a result of climate change.

Investments in infrastructure and sanitation facilities; protection and restoration of water- related ecosystems; and hygiene education are among the steps necessary to ensure universal access to safe and affordable drinking water for all by 2030, and improving water-use efficiency is one key to reducing water stress.

There has been positive progress. Between 2015 and 2022, the proportion of the world's population with access to safely managed drinking water increased from 69 per cent to 73 per cent.

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Kinnaird's activities on GOAL 6: Clean Water and Sanitation

Kinnaird students have launched a business on clean water and sanitation named "Environmental Enigma" in Business Idea Competition in Kinnaird.

Courses Offered

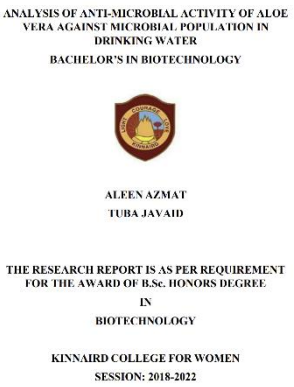
Kinnaird College for Women offers major courses on Clean Water and Sanitation goal of sustainable development. The Final projects of students mainly focus on the Sustainable Development Goals for raising the understanding regarding the importance and requirements of the Agenda 2030 sustainable development goals.

Research Reports

Many research reports conducted by students of Kinnaird on Clean Water and Sanitation

- Water profiling of surface and ground water, along River Ravi &Sutlej, Punjab, Pakistan
- Assessing the waste water quality of Hudiara drain and its impact on adjacent soil, groundwater and vegetation
- Determination of drinking water quality of Samanabad Town.

Completed a thesis entitled "Analysis of anti-microbial activity of aloe Vera against microbial population in Drinking water" Remediation of Lead-Contaminated Water Using Iron-Zinc Bimetallic Nanoparticles Synthesized by Azadirachta Indica Leaf Extract



ANALYSIS OF ANTI-MICROBIAL ACTIVITY OF ALOE VERA AGAINST MICROBIAL POPULATION IN DRINKING WATER

BACHELOR'S IN BIOTECHNOLOGY

ALEEN AZMAT

TUBA JAVAID

THE RESEARCH REPORT IS AS PER REQUIREMENT FOR THE AWARD OF B.Sc. HONORS DEGREE IN BIOTECHNOLOGY

KINNAIRD COLLEGE FOR WOMEN

SESSION: 2018-2022

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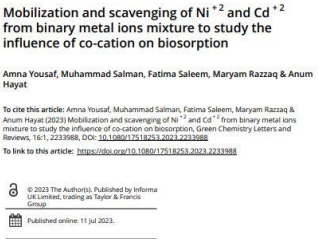

Mobilization and scavenging of Ni^{+2} and Cd^{+2} from binary metal ions mixture to study the influence of co-cation on biosorption

Amna Yousaf, Muhammad Salman, Fatima Saleem, Maryam Razzaq & Anum Hayat

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Amna Yousaf & Dr. Anum Hayat published a paper on water treatment entitled “Mobilization and scavenging of Ni+ 2 and Cd+ 2 from binary metal ions mixture to study the influence of co-cation on biosorption. Green Chemistry Letters and Reviews’ 2023.

Paper presented in conference.

ORAL

PHYSICO-CHEMICAL ANALYSIS OF SPRING WATER FROM SOME SELECTED AREAS OF NEELAM VALLEY AZAD KASHMIR

Fatima Imran[1*], Mahnoor Nadeem[1], Asma Liaqat[1], Rahila Huma[1]

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Abstract:

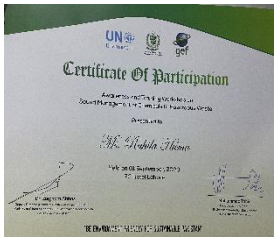
Ground Springs are natural source of water flow on Earth's surface. The Quality of spring water and its suitability for human consumption was investigated by evaluating different physicochemical parameters. In this study 14 spring water samples were collected from most populated areas of Neelum Valley Azad Kashmir. This water analysis was done during June 2019-May 2020. The electrical conductivity, pH, total hardness, and metal ion concentration (Zn, Cu, Co, Cr, Mn, Cd, and Ni) were measured to generate the water quality index. The result revealed that pH, electrical conductivity, and hardness are in acceptable range, except for the sample C and J that shows highest value of hardness (5001 mg/L and 48000 mg/L). Metal ion concentration in water samples shows that Zn, Cd, Mn and Co are within the allowed limit of World Health Organization, but Cr, Cu and Ni values in some samples are exceeding the permissible limit implying that those samples are not suitable for human consumption and need treatment prior to use.

Keywords:
Physicochemical parameter; Water quality; Spring water

Imran, F., Nadeem, M., Liaqat, A., Huma, R.,. “Physico-chemical analysis of spring water from some selected areas of Neelam valley Azad Kashmir.” Oral Presentation in 2nd International Conference of Science, Technology and Innovation, at Kinnaird College for Women, Lahore 8th-10th March, 2023.

Dr Rahila Huma attended a Photography competition on water conservation in collaboration with GYM Club Kinnaird College for women Lahore.(8th May, 2023)

Dr Rahila Huma Participated in “Awareness and training workshop on sound management of Chemicals and Hazardous Waste” held on 1st September 2023 at PC Hotel Lahore.



Certificate Of Participation

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Dr. Rubina Munir organized a Creative Writing Competition on “Environmental Fiction: Invest in Our Planet” at Kinnaird College for Women, Lahore as Advisor Science Club (18th April, 2023).

Save Water

Participation in Seminar on the theme of ARTIFICIAL INTELLIGENCE/ NANO TECHNOLOGY.(o monitor data regarding floods.) Organized by Pakistan Engineering Congress dated PEC, 18th February 2023.