





organizes A Symposium on

WORLD WATER DAY

Groundwater: Making the invisible visible



Convener



Dr. Vani Parwez Assistant Professor Chitkara College of Education Chitkara University

Co-Convener



Dr. Parul Sood Assistant Dean cum Academic Coordinator Chitkara College of Education Chitkara University

Principal Convener



Dr. Sangeeta Pant Dean, Chitkara College of Education, Chitkara University

Co-Convener



Rekha Trivedi Secretary General APSWDP

Convener & Moderator



Hitesh Kumar Gulati Hon. Director General APSWDP





Dr. Pooja Singh Assistant Professor Chitkara College of Education Chitkara University

Thursday, 24th March 2022 2:00 PM to 3:00 PM Platform: 2000







EDValue, ADVANCED EDGlobal, EDSocial

ORGANISING COMMITTEE

Chief Mentor

Dr. Vivek Trivedi Founder & Principal Adviser, APSWDP, Chandigarh

Convener & Moderator Hitesh Kumar Gulati Hon. Director General, APSWDP, Chandigarh

Co-Convener

Dr. Parul Sood Assistant Dean cum Academic Coordinator, Chitkara College of Education, Chitkara University

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Dr. Sangeeta Pant Dean - Chitkara College of Education, Chitkara University

Convener

Dr. Vani Parwez Assistant Professor - Chitkara College of Education, Chitkara University

Rapporteur

Dr. Pooja Singh Assistant Professor - Chitkara College of Education, Chitkara University

Edited by:	Hitesh Kumar Gulati Hon. Director General, APSWDP, Chandigarh		
	Dr. Pooja Singh		
	Assistant Professor - Chitkara College of Education, Chitkara University		
Designed by:	Hitesh Kumar Gulati Hon. Director General, APSWDP, Chandigarh		

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Chandigarh-Patiala National Highway (NH- 64 Village Jansla, Rajpura, Punjab - 140401

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2022 Groundwater

Source: https://www.worldwaterday.org/

BACKGROUND





WORLD WATER DAY 2022

World Water Day is an annual United Nations observance day held on 22 March that highlights the importance of fresh water. The day is used to advocate for the sustainable management of freshwater resources. The tradition has continued since 1993. According to the United Nations website, more than 2.2 billion people live without the access to safe water. On this day people and organizations mark World Water Day by taking action to tackle the water crisis.

As per an article of International Groundwater Resources Assessment Centre, Groundwater is a vital resource that provides almost half of all drinking water worldwide, about 40% of water for irrigated agriculture and about 1/3 of water required for industry. It sustains ecosystems, maintains the base-flow of rivers and prevents land subsidence and seawater intrusion. Groundwater is an important part of climate change adaptation process and is often a solution for people without access to safe water. Despite these impressive facts and figures, invisible groundwater is out of sight and out of mind for most people. Human activities (including population- & economic growth) and climate variability are rapidly increasing the pressure on groundwater resources: serious depletion and pollution problems are reported for many parts of the world. The Day on groundwater would put a spotlight on this invisible resource, enhance knowledge exchange and collaboration and thereby increase the awareness of the importance of taking care of our groundwater.

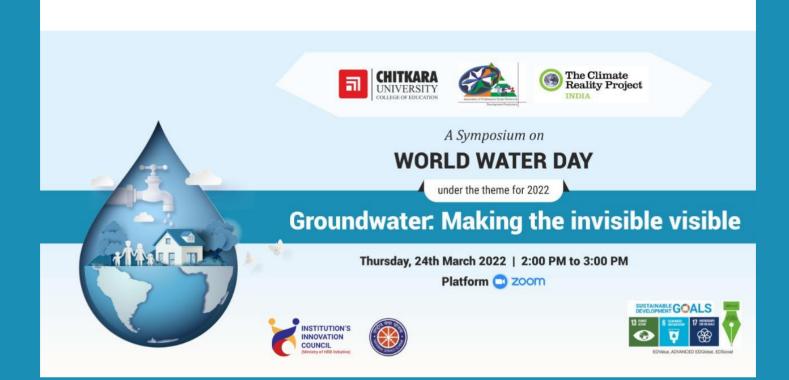
Life would not be possible without groundwater. Most arid areas of the world depend entirely on groundwater. Groundwater supplies a large proportion of the water we use for drinking, sanitation, food production and industrial processes. It is also critically important to the healthy functioning of ecosystems, such as wetlands and rivers. We must protect them from overexploitation - abstracting more water than is recharged by rain and snow - and the pollution that currently haunts them, since it can lead to the depletion of this resource, extra-costs of processing it, and sometimes even preventing its use. Exploring, protecting and sustainably using groundwater will be central to surviving and adapting to climate change and meeting the needs of a growing population.

Source: https://www.un.org/en/observances/water-day

https://www.un-igrac.org/news/groundwater-making-invisible-visible-theme-world-water-day-2022

VIRTUAL SYMPOSIUM ON WORLD WATER DAY 2022

The core focus of World Water Day is to support the achievement of **Sustainable Development Goal 6: water & sanitation** for all by 2030. For commemorating **World Water Day 2022**, Chitkara College of Education, Chitkara University organized a virtual symposium on the theme "Groundwater: Making the Invisible Visible" on 24th March, 2022 between 2 pm to 3 pm (IST); in partnership with Association of Professional Social Workers and Development Practitioners (APSWDP) & The Climate Reality Project India (TCPI), with an aim to work together with academic institutions & organizations, government & communities.

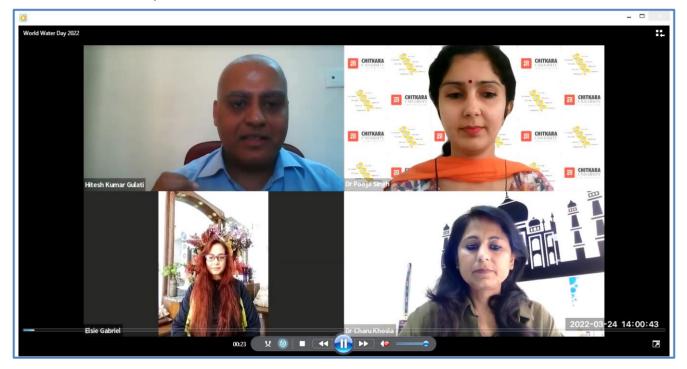


COMMEMORATING WORLD WATER DAY 2022

COMMEMORATING WORLD WATER DAY 2022

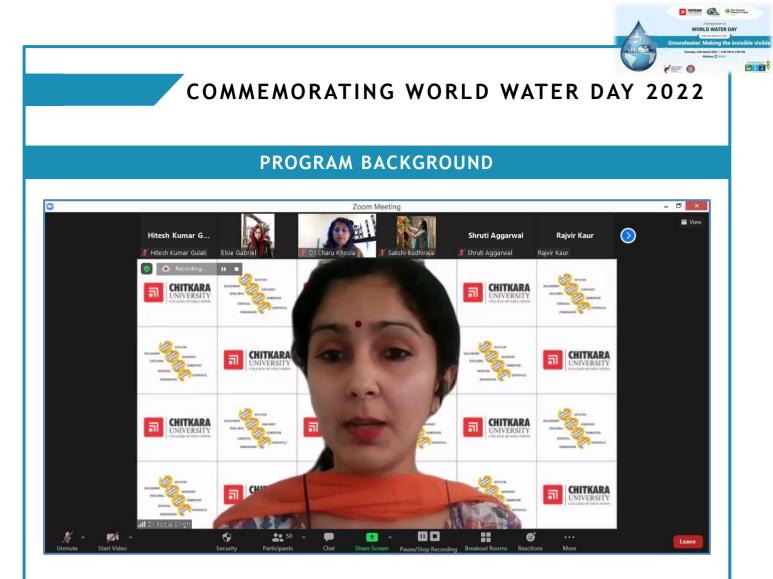
FORMAL WELCOME

The symposium commenced with Mr. Hitesh Kumar Gulati, Hon. Director General, APSWDP, and the Convener and Moderator of the program, extending a warm welcome to the august gathering of participants from varied occupations including Academicians, CSR Professionals, Development Practitioners, Entrepreneurs, Government Officers, Public Health Experts, Legal Practitioners, Researchers, Social Activists, Students and others. Mr. Gulati welcomed all the participants on behalf of the Principal Convener, Dr. Sangeeta Pant, Dean Chitkara College of Education, Chitkara University and Dr. Vivek Trivedi, Founder and Principal Adviser, APSWDP.



PROGRAM BACKGROUND

The Program background was presented to the audience by Dr. Pooja Singh, Assistant Professor, Chitkara College of Education, Chitkara University. Dr. Singh shared how groundwater is critically linked with the healthy functioning of ecosystems, such as wetlands and rivers. She emphasized upon the importance of protecting ground water from over exploitation as well as how pollution currently haunts ground water, depletion of this resource, extra-costs of processing it, and sometimes even preventing its use. She further stressed the importance of exploring, protecting and sustainably using groundwater which is central to surviving and adapting to climate change and meeting the needs of a growing population. Dr. Singh further mentioned that Chitkara College of Education, Chitkara University has organized the symposium on the theme "Groundwater: Making the Invisible Visible"; in partnership with Association of Professional Social Workers and Development Practitioners (APSWDP) & The Climate Reality Project India (TCPI), with an aim to work together with academic institutions & organizations, government & communities.



INTRODUCTION OF RESOURCE PERSONS/ EXPERTS

Mr. Hitesh Kumar Gulati, the Convener and Moderator of the program introduced the Resource Persons/ Experts of the World Water Day 2022.



COMMEMORATING WORLD WATER DAY 2022

INTRODUCTION OF RESOURCE PERSONS/ EXPERTS

Ms. Elsie Gabriel is an MCAPC Consultant, Lakshadweep Action Plan Climate Change, Ambassador for India Ocean Ouest Global International: Founder Young Environmentalists Program; National Coordinator Oceans-Climate Reality Project; Founder/Co- Chairperson Oceans School India. Elsie is a Distinction Gold certified Environment Educator CEE India with Education Honours, loreto House Kolkata. She is an award winning environmentalist, climate change consultant advocate, global speaker, trained and certified by former Vice President of USA Al Gore in Rio Brazil South America.



Researching on anthropological ocean communities and traditional knowledge, she is a PADI certified advanced diver, with certified expertise in Environment law and Mass Communications, Climate change mitigation and ocean education. She is also an alumnus of Harvard Business School Leadership for Senior Executives, USA. Ms. Gabriel is a **Global Peace Ambassador** awarded by the Workhardt International Foundation. She has won many accolades including National Winner Kerala Eco Tourism and Awardee of the Women's Achievers Award by the Mayor of Mumbai. Post her Spiritual Ecology certificate Australia she authored her book "Get Out Get Going Outdoors" while writing for the Times of India, and it was launched by the Governor and Mayor of Mumbai.

Dr. Charu Khosla is presently an Assistant Dean with the Office of International Affairs, Chitkara University. Her areas of expertise are Environmental Management, Environment Monitoring & Assessment, Energy Management, Industrial Wastewater using bio resins and Potable Water Treatment . She focuses on the role of 3R approach. Being an entrepreneur, she has worked on the conversion of Agro waste into clean and green fuel with Smokeless chulha. She obtained her doctorate in Environmental Technology & Management from Punjabi university, Patiala with specialization in Wastewater treatment of various Industries.



She has many awards to her credit, including the highly prestigious "Greenpreneur Award-2021", "She Can She Will Award -2021" for being the influential women of Punjab state, ANIC Grant of 1 crore by the Govt of India - Niti Aayog, "International Human Star" -2018, Startup India Himachal Pradesh Yatra Award-2018, and "Best Eco-friendly Research of the year Award-2013. She is also the Board member of Scientific Committee and Editorial Review Board of Engineering and Physical Sciences of the World Academy of Science, Engineering and Technology, UK.

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Ms. Elsie Gabriel started the key note address with a very poignant statement "World Water Day is every day." She went on to emphasize the importance of water and why it needs to be celebrated every day. She gave an example of Israel, a country where 90 percent of waste water is effectively recycled. She shared how Israel piqued her interest to read more about ground water preservation. She told that Israel, being a semi-desert and arid region, has still managed to be self-sufficient when it comes to water usage.

Ms. Gabriel shared with the participants the four key outlines of her speech, namely, SDG-6, Field Research, Water Footprint and Community Engagement. She emphasized the relevance of SDG 6 which calls for ensuring universal access to safe and affordable drinking water, sanitation and hygiene, and ending open defecation. It also aims to improve water quality and water-use efficiency and to encourage sustainable abstractions and supply of freshwater.

She believes that students need to see for themselves the whole process of waste water disposal. She highlighted how she ensures that students are taken on field trips where they observe the sewage. Only if the students are directly exposed to this, will they understand the critical importance of water. She talked passionately about the fact that educators and practitioners need to make visible what is "invisible". She expressed her regret over the fact that people are wasting something precious because they don't 'see' it.

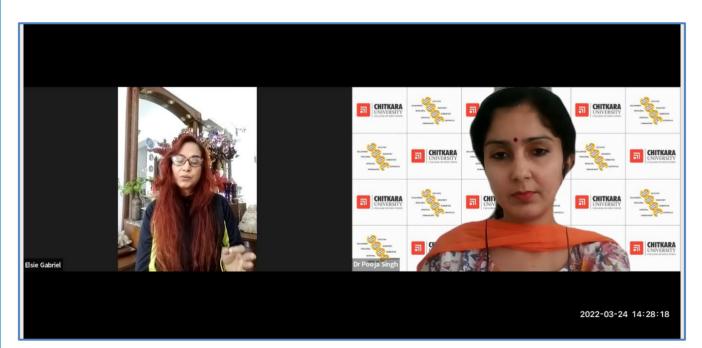
COMMEMORATING WORLD WATER DAY 2022

ADDRESS BY ELSIE GABRIEL

Ms. Gabriel also discussed with the audience the concept of Water footprints. The concept she says has not received enough attention by the media as opposed to Carbon footprints. She shared some very thought-provoking facts; a single cup of coffee has a water footprint of 140 litres, a pair of jeans has a water footprint of 7600 litres, and an average human being's water consumption per day is 4000 litres. She emphasized that one needs to be more aware of water footprint and use water judiciously.

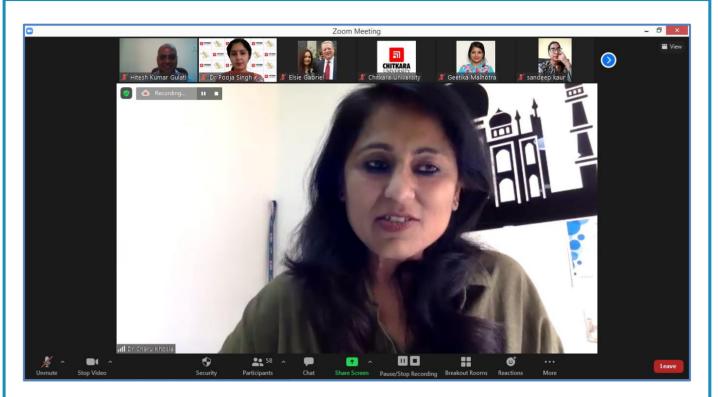
Ms. Gabriel shared that community engagement is something vital when it comes to fighting water pollution and saving ground water. The whole community has to come together and work towards the common goal of water preservation. Irrespective of which field one belongs to, a collective consciousness needs to be created to ensure that everyone engages judiciously in water preservation.

Ms. Gabriel ended her speech with an engaging video on Water conservation which made the audience think some more about the choices that the need to make when it comes to judicious water use.



COMMEMORATING WORLD WATER DAY 2022

ADDRESS BY DR. CHARU KHOSLA



Dr. Charu Khosla started her speech with a very relevant statement "**We are made up of water**". She emphasized the fact that water is the elixir of life and students need to be educated about conserving water. Dr. Khosla stated that there are four pillars of water sustainability- Science, Economics, Governance and Spirituality. All of these pillars need to be considered when it comes to educating the public about water conservation.

She further shared the status of water conservation in the state of Punjab, expressing how pollution, toxic waste, shorter monsoons, and depleting rivers affect the water availability in the state. She then went ahead and talked about how Chitkara University, Punjab, has been engaging in judicious use of water and has been recycling waste water. She shared that the University has two waste-water treatment plants. Also, interlocking tiles are used in the University to ensure that rain water and other run-off water permeates into the ground, thus replenishing underground water.

Dr. Khosla praised UGC for including the compulsory topic of Environmental Studies in all Undergraduate courses, and shared that Chitkara University is ensuring that students are imbibed with a sense of social responsibility when it comes to environment conservation.

She also encouraged the audience to connect to water at a spiritual level and realize how immensely important it is for the human race to survive.



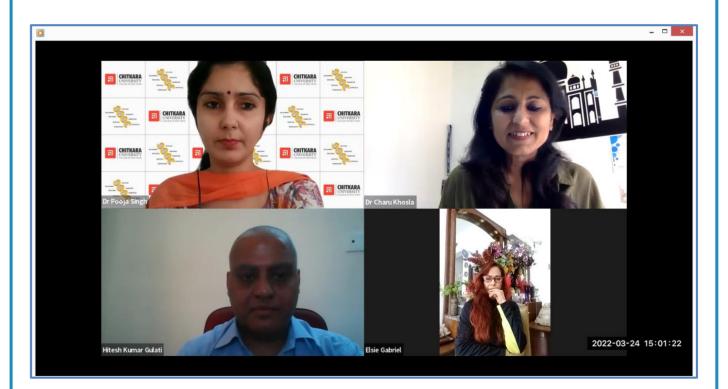
VALEDICTORY SESSION

VALEDICTORY SESSION

OPEN FORUM FOR QUESTION-AND-ANSWER

The virtual symposium then progressed towards the Q & A session, where the participants posed their queries and questions to the Speakers. One of the most noticeable questions was asked by Ms. Shikha Bharati, a teacher, who posed her question at Dr. Charu Khosla about the ways students can be taught about the adverse effects of the rising population on water conservation. To this Dr. Khosla replied that the students need to be mentally prepared to adopt sustainable ways and they need to be taught about the simplest steps that can be taken towards water conservation. Population increasing at an exponential rate in the country has a negative impact on the available water and this fact needs to be drilled into the minds of young students.

Ms. Elsie Gabriel also congratulated Ms. Bharati on asking this very relevant question and stressed the importance of understanding direct and indirect consumption of water. Dr. Pooja Singh also further added that students need to take conscious efforts towards water conservation and not take for granted what they think is readily available to them.



VALEDICTORY SESSION

CONCLUDING REMARKS AND VOTE OF THANKS

Mr. Hitesh Kumar Gulati expressed heartfelt gratitude to the Keynote Speaker - Ms. Elsie Gabriel; who shared her knowledge & wisdom in the Virtual Symposium on "Groundwater: Making the invisible visible", while commemorating the World Water Day 2022.

Her deliberation made the participants to re-think with one of very important point that 40% of the Indian population will not have access to water by 2030 due to the exponential shoot in population growth. The best practices of Israel to recycle 90% of its ground water is something the different countries should learn from. Water is critically important to the healthy functioning of ecosystems, such as wetlands and rivers. It must be protected from overexploitation. Human activities (including population- and economic growth) and climate variability are rapidly increasing the pressure on groundwater resources: serious depletion and pollution problems are reported for many parts of the world. She further emphasised that as Educationist, Development Practitioner, Climate Change Consultant and Social Workers; to put a spotlight on this invisible resource, enhance knowledge exchange and collaboration and thereby increase the awareness of the importance of taking care of our groundwater.

Mr. Gulati expressed special thanks to the Special Guest Dr. Charu Khosla, Assistant Dean, Office of International Affairs, Chitkara University, Punjab for making the audience aware of the depletion of groundwater resources due to excessive usage of resources & how Chitkara University is working on rain harvesting to recycle the ground water, recharging the ground water tables through inter-locking tiles, realise to work ethically on the four important pillars - Science, Economics, Governance & Spiritual Connection.

He also conveyed his sincere thanks to Dr. Niyati Chitkara, Director- Chitkara International School, Dr. Sangeeta Pant, Dean, Chitkara College of Education, Chitkara University, Dr. Parul Sood, Assistant Dean, Chitkara College of Education, Mr. Vivek Trivedi, Founder, APSWDP and Dr. Sumit Arora, President, APSWDP for their encouraging leadership. He also thanked the organizing members of the event including Dr. Vani Parwez, Assistant Professor, Chitkara College of Education, Dr. Pooja Singh, Assistant Professor, Chitkara College of Education, Dr. Pooja Singh, Assistant Professor, Chitkara College of Education, Dr. Pooja Singh, Assistant Professor, Chitkara College of Education and Mr Surender, IT Support, Chitkara University for the comprehensive planning and timely execution of the virtual symposium on World Water Day 2022. Towards the end, he expressed heartiest gratitude for all the participants for showing keen interest in the event.



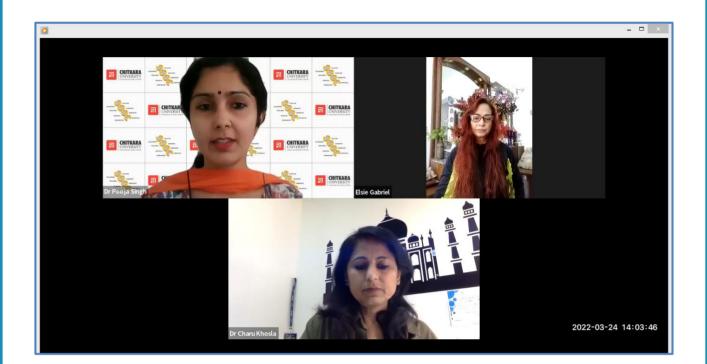
ANNEXURE

PROGRAM FLOW, PICTURE GALLERY & FEEDBACK AND ANALYSIS

1A	NNEXURE		
	PROGRAM	FLOW	
	WOR	A Symposium on	
erit i i i i	Groundwater.	And the theme for 2022 March 2022 2:00 PM to 3:00 PM Platform © 2007 Very COALS Very COALS	1
		CONCERNED PERSON	-
02:00 pm to 02:02 pm	Formal Welcome	Hitesh Kumar Gulati Program Convener & Moderator Hon. Director General, APSWDP	
		Dr. Desis Singh	
02:02 pm - 02:05 pm	Program Background	Dr. Pooja Singh Assistant Professor, Chitkara College of Education, Chitkara University	
02:02 pm - 02:05 pm COMMEMORATING WOR		Assistant Professor, Chitkara College of Education,	-
		Assistant Professor, Chitkara College of Education,	-
COMMEMORATING WOR	RLD WATER DAY 2022 Deliberation on World Water Day 2022 Theme Groundwater: Making the invisible	Assistant Professor, Chitkara College of Education, Chitkara University Elsie Gabriel Ambassador for India Ocean Quest Global Founder-Young Environmentalists Programme Trust,	-
COMMEMORATING WOR 02:05 pm to 02:30 pm	RLD WATER DAY 2022 Deliberation on World Water Day 2022 Theme Groundwater: Making the invisible visible Special Address on World Water Day	Assistant Professor, Chitkara College of Education, Chitkara University Elsie Gabriel Ambassador for India Ocean Quest Global Founder-Young Environmentalists Programme Trust, Hon. National Coordinator Oceans, TCRP India Dr. Charu Khosla Assistant Dean, Office of International Affairs,	-
COMMEMORATING WOR 02:05 pm to 02:30 pm 02:30 pm to 02:45 pm	RLD WATER DAY 2022 Deliberation on World Water Day 2022 Theme Groundwater: Making the invisible visible Special Address on World Water Day	Assistant Professor, Chitkara College of Education, Chitkara University Elsie Gabriel Ambassador for India Ocean Quest Global Founder-Young Environmentalists Programme Trust, Hon. National Coordinator Oceans, TCRP India Dr. Charu Khosla Assistant Dean, Office of International Affairs,	-



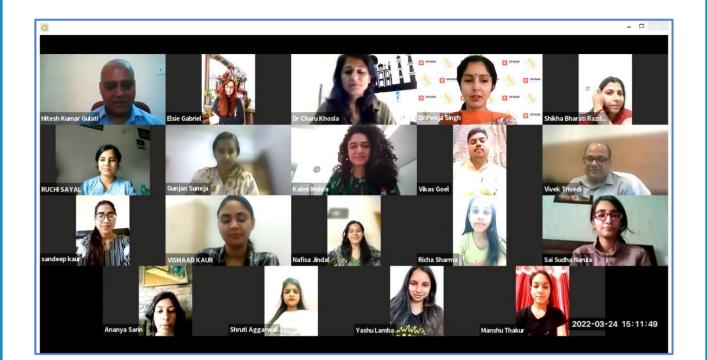
PICTURE GALLERY

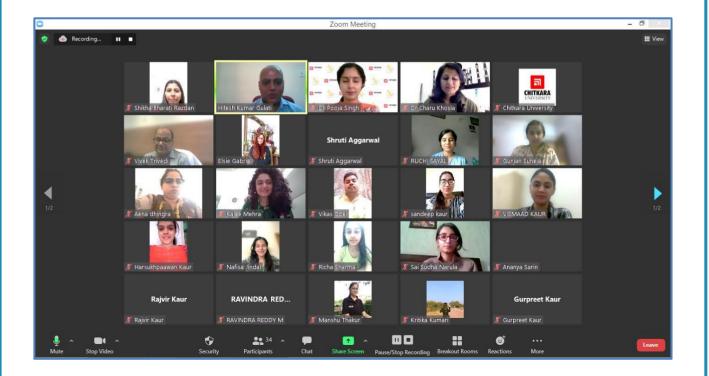






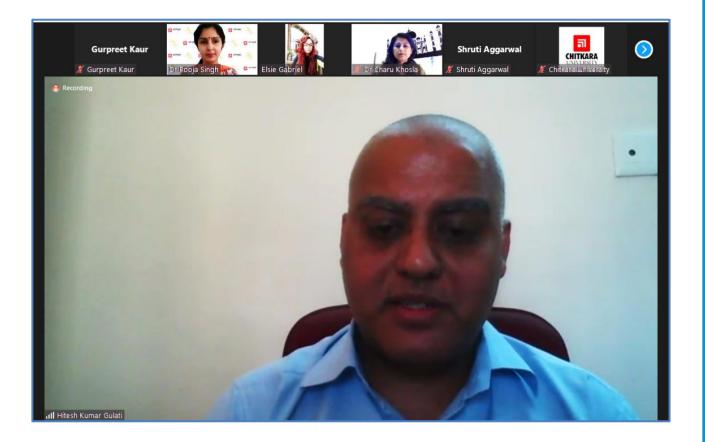
PICTURE GALLERY

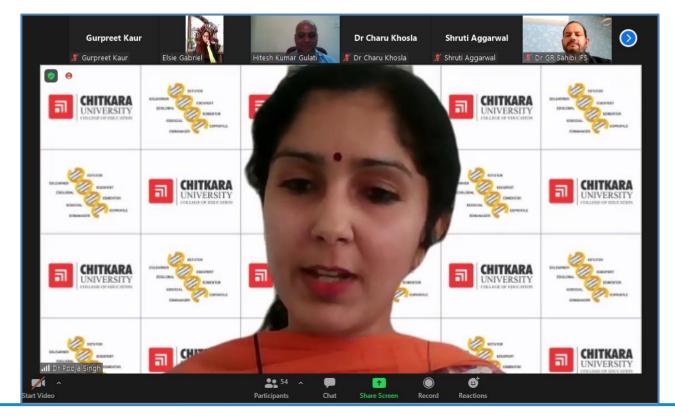






PICTURE GALLERY







E-FEEDBACK AND ANALYSIS





30

e-Feedback and Analysis

TOTAL RESPONSES RECEIVED:

Feedback received from the participants in the Virtual Symposium, will be utilized by Association of Professional Social Workers & Development Practitioners (APSWDP), Chandigarh team to determine & improve future programs.

Rating for the each section based on the following criteria: 5=excellent 4=good 3=average 2=fair 1=poor

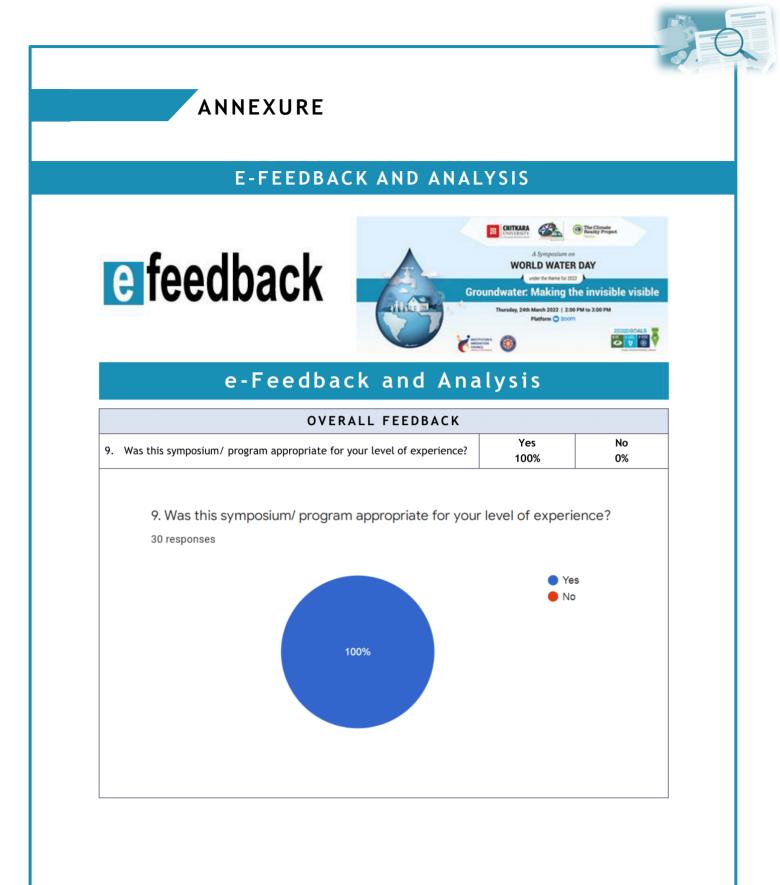
RESOURCE PERSON (S)/ EXPERT (S)/ FEEDBACK					
Rating of the Resource Person (s)/ Expert (s) on the following:		4	3	2	1
1.Knowledge of the subject matter.	73.30%	26.70%	0.00%	0.00%	0.00%
2.Explained and illustrated the topic.	73.30%	26.70%	0.00%	0.00%	0.00%
3.Completed the symposium/ program within the timeframe.	76.70%	20.00%	3.30%	0.00%	0.00%
4. The Resource Person (s) answered questions completely.	73.30%	26.70%	0.00%	0.00%	0.00%
AVERAGE SCORE	74.14%	25.03%	0.83%	0.00%	0.00%

99.17% of participants feel *happy with the knowledge & dialogue/ session by the Resource Person / Expert (s)

FEEDBACK ON CONTENT AND STRUCTURE OF THE VIRTUAL SYMPOSIUM/ PROGRAM					
Rating on the content and structure of the virtual symposium/ program:		4	3	2	1
5. The usefulness of the information received in the symposium/ program.	73.30%	26.70%	0.00%	0.00%	0.00%
6.The structure of the symposium/ program.		20.00%	6.70%	0.00%	0.00%
7. The pace of the symposium/ program.	80.00%	16.70%	3.30%	0.00%	0.00%
8. The convenience and sequence of the symposium/ program.		16.70%	6.70%	0.00%	0.00%
AVERAGE SCORE	75.80%	20.03%	4.17%	0.00%	0.00%

95.83% of participants feel *happy with the Content and Structure of the Virtual Symposium/ Program.

*Happy - %age sum of excellent (5) and good (4) responses





E-FEEDBACK AND ANALYSIS





e-Feedback and Analysis

OVERALL FEEDBACK
What did you most like about the symposium/ program?
10. What did you most like about the symposium/ program? 21 responses
Speakers knowledge and moderation
Very informative session
I liked that i learnt about water footprint.
This session was great.
Illustration
Confidence level and information regarding the program was well known
Interesting webinar and knowledgeable
I learned about things that i never knewlike the litres of water consumed by jeans, which was quite a suprise for me, as I love wearing jeans but now after knowing this I have to cut my use of jeans and not buy them so much.
I got to know more about need of conserving water.
How the water print can guide us how much the water usage is.
The speakers delivered wonderful content regarding the importance of water in the world and how it can be conserved and they also talked about what role a school, teacher and students can play in the same.
The program highlighted how can we conserve water in future in order to save our generations from its scarcity or water crisis. The session was very informative.
The concept of water footprint was new and very informative for me.
I like the information about the ground water table and knowledge about the rain water harvesting techniques.
I like the information about ground water table and methods to reduce water pollution and we should not water taken for granted and we have to save water.



E-FEEDBACK AND ANALYSIS



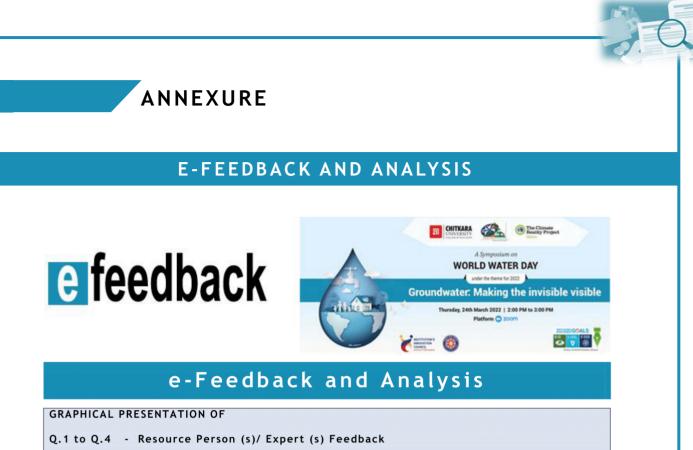


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e-Feedback and Analysis

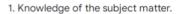
OVERALL FEEDBACK 10. What did you most like about the symposium/ program? 21 responses I like the knowledge about rain water harvesting technique and other measures to stop water from depletion The usefulness of the information which we can apply in our day to day life Make invisible water visible. The accuracy of the knowledge on the topic. I got to know more about need of conserving water Valuable information



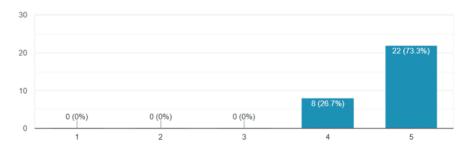


Q.5 to Q.8 - Feedback on Content and Structure of the Virtual Symposium/ Program

RESOURCE PERSON (S)/ EXPERT (S) FEEDBACK

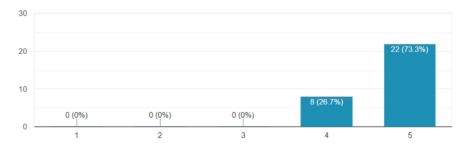


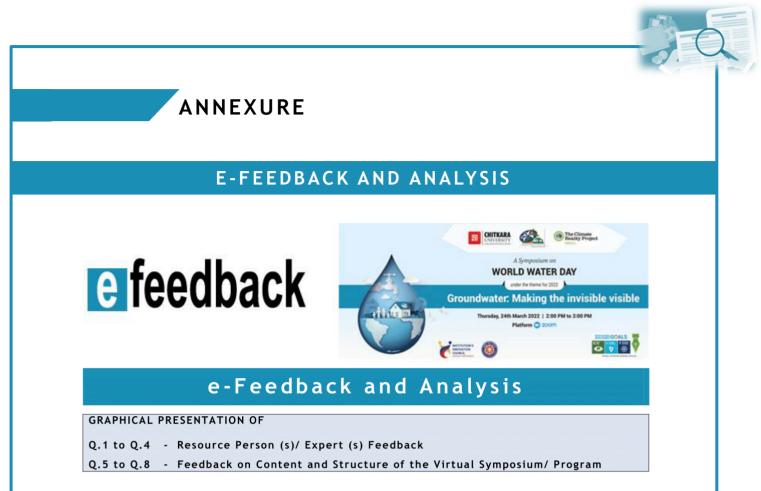
30 responses



2. Explained and illustrated the topic.

30 responses

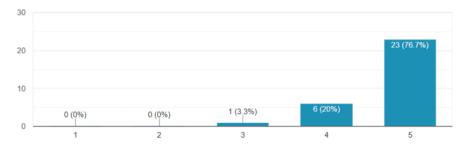




RESOURCE PERSON (S)/ EXPERT (S) FEEDBACK

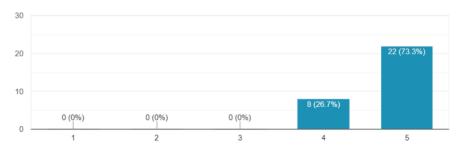
3. Completed the symposium/ program within the timeframe.

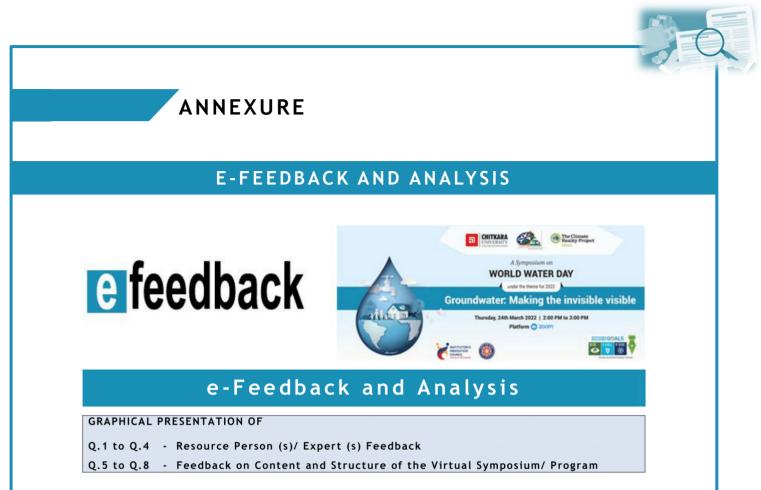
30 responses



4. The Resource Person (s) answered questions completely.

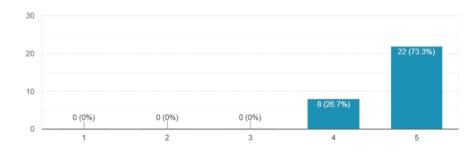
30 responses





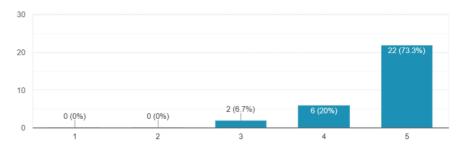
FEEDBACK ON CONTENT AND STRUCTURE OF THE VIRTUAL SYMPOSIUM/ PROGRAM

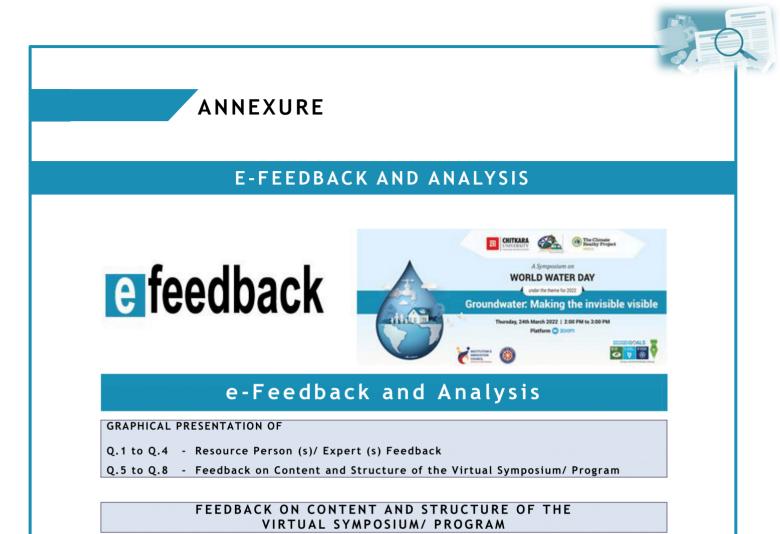
5. The usefulness of the information received in the symposium/ program. 30 responses

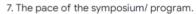


6. The structure of the symposium/ program.

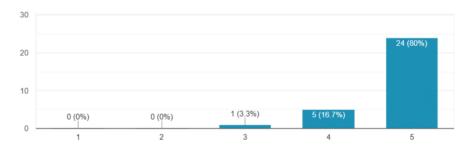
30 responses





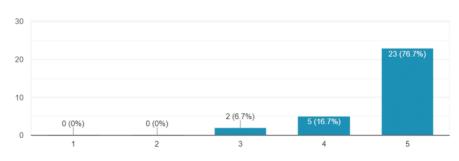


30 responses



8. The convenience and sequence of the symposium/ program.

30 responses



WORLD

WARLD

DAY

2022

Source: https://latestnews.fresherslive.com/articles/world-water-day-history-significance-poster-slogans-quotes-and-more-352594

"Save Water to Secure Your Future."