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JVL/EHS/ENV/2022/170

May 14, 2022

To,  
The Member Secretary  
UP Pollution Control Board,  
TC – 12 V, Vibhuti Khand,  
Gomti Nagar,  
Lucknow – 226010, U.P.

Subject: Environmental Statement (Form-V) for Jubilant Ingrevia Limited,  
Gajraula, Amroha, U.P.

Dear Sir,

We are Submitting herewith the Environmental Statement in Form-V for FY 2021-22 as per Rule-14 of Environment Protection Act, 1986 for M/s Jubilant Ingrevia Limited, Gajraula.

We assure you of our commitment for the compliance of statutory requirements all the times.

Thanking you,  
Yours faithfully,  
For Jubilant Ingrevia Limited,

(Authorized Signatory)  
Himanshu Kumar Shukla  
(Site Head)

Enclosures: As mentioned above

CC: 1) Chief Environmental Officer, Circle-7, UPPCB, Lucknow (U.P.)  
CC: 2) Regional Officer, UP Pollution Control Board, Bijnor, (U.P.)  
CC: 3) MoEF & CC, Regional Office (Central Zone), Lucknow

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क्षेत्रीय कार्यालय  
उत्तर प्रदेश प्रदूषण नियन्त्रण बोर्ड  
बिजनौर

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A Jubilant Bhartia Company

OUR VALUES



Jubilant Ingrevia Limited  
Bhartiagram, Gajraula  
Distt. Amroha - 244 223, UP, India  
Tel: +91 5924 252351, 252353-60  
www.jubilantingrevia.com

Corporate Office:  
I-A, Sector 16-A,  
Noida-201 301, UP, India  
Tel: +91 120 4361000  
Fax: +91 120 4234895-96

Regd Office:  
Bhartiagram, Gajraula  
Distt. Amroha - 244 223  
Uttar Pradesh, India  
CIN : U24299UP2019PLC122657

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**Form V**  
**(See Rule 14)**

**Environmental Statement for the financial year ending on 31<sup>st</sup> March 2022**

**Part A**

<b>Name &amp; address of the owner/occupier of the industry operation or process</b>	Himanshu Kumar Shukla Site Head Jubilant Ingrevia Limited, Bhartiagram, Gajraula, District- Amroha (UP)
<b>Production Capacity Units</b>	Enclosed as <b>Annexure-1</b>
<b>Year of Establishment</b>	1982
<b>Date of Last Environment Statement submitted</b>	<b>May 30, 2021</b>

## **Part B**

### **Water and Raw material Consumption**

#### **i. Water Consumption in M<sup>3</sup>/day**

<b>Descrpition</b>	<b>Avg. Quantity (M<sup>3</sup>/Day)</b>
<b>Process</b>	4172
<b>Cooling</b>	1207
<b>Domestic</b>	717

<b>Name of the products</b>	<b>Process Water Consumption per Unit of product (M<sup>3</sup>/MT)</b>	
	<b>During previous Financial year (2020-21)</b>	<b>During current Financial year (2021-22)</b>
<b>Ethyl Alcohol</b>	5.43	4.07
<b>Carbon Dioxide</b>	6.27	12.42*
<b>Acetaldehyde</b>	0.11	2.70
<b>Acetic Acid</b>	Not manufactured	Not manufactured
<b>Acetic Anhydride</b>	4.17	3.28
<b>Pyridine &amp; Picoline – 1 &amp; 2</b>	0.1391	0.13
<b>Cyanopyridine</b>	-	-
<b>Formaldehyde</b>	0.33	0.23

\*Increased due to lower production

#### **ii. Raw Material Consumption**

<b>Name of Raw material</b>	<b>Name of Products</b>	<b>Consumption of Raw Material per unit of Output (MT/MT)</b>	
		<b>During previous Financial year (2020-21)</b>	<b>During current Financial year (2021-22)</b>
<b>Molasses</b>	<b>Alcohol (KBL)</b>	4.61	4.44
<b>Alcohol</b>	<b>Acetaldehyde</b>	1.06	1.09
<b>Ethyl Alcohol</b>	<b>Ethyl Acetate</b>	0.72	0.72
<b>Methanol</b>	<b>Formaldehyde</b>	0.43	0.42
<b>Ammonia</b>	<b>Pyridine and Picoline 1&amp;2</b>	0.41	0.41
<b>Ammonia</b>	<b>3 Cyano pyridine</b>	0.47	0.45
<b>Ammonia</b>	<b>4 Cyano pyridine</b>	0.62	0.57



## Part C

### **Pollution discharged to Environment/unit of output**

(Parameter as specified in the consent issued)

<b>Pollutants</b>	<b>Unit</b>	<b>Quantity of Pollutants discharged (mass/day)</b>	<b>Concentration of Pollutants discharged (mass/volume)</b>	<b>% of variation from prescribed standards with reasons</b>
<b>Water</b>	Distillery Unit	Not Applicable as Unit is ZLD	Effluent treated through Biomethanation followed by RO. The reject from RO sent for further concentration in MEE and finally utilized for composting / Incineration. Permeate from RO plant and Condensate from MEE utilized back in process and cooling tower make up. <b>No discharge from Distillery Unit and complete Zero Liquid Discharge status is being maintained.</b>	Well within prescribed norms of UPPCB
	Chemical Unit I	Not Applicable as Unit is ZLD	Effluent treated in CETP followed by CTRO. Permeate of RO utilised in cooling tower makeup and reject used for coal dust suppression.  <b>No discharge and complete Zero Liquid Discharge status is being maintained.</b>	
	Chemical Unit II	Not Applicable as Unit is ZLD	<b>Organic effluent</b> : Concentrated in MEEs and incinerated in Liquid waste incinerators. <b>Inorganic effluent</b> : Dried through ATFD (Agitated Thin Film Dryers) or Spray dryer and dried solids disposed in captive SLF. <b>No discharge and complete Zero Liquid Discharge status is being maintained.</b>	
	Power plant	Not Applicable as Unit is ZLD	Utility effluent from WTP and Cooling towers treated in RO and reject is utilized for wet ash handling system/Dust Supression. Clear permeate utilized back for make up in cooling towers. <b>No discharge and complete Zero Liquid Discharge status is being maintained.</b>	

Pollutants	Unit	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	% of variation from prescribed standards with reasons
Air emission	FBC Boiler 90 TPH-I + 90 TPH-II (Stack common)	SPM - 38.58 mg/Nm <sup>3</sup> (Average value for FY 21-22 stack monitoring)		Well within prescribed norms of UPPCB
	Liquid Waste Incinerator I	SPM - 38.75 mg/Nm <sup>3</sup> (Average value for FY 21-22 stack monitoring)		
	Liquid Waste Incinerator II	SPM - 36.67 mg/Nm <sup>3</sup> (Average value for FY 21-22 stack monitoring)		
	Liquid Waste Incinerators III	SPM - 35.25 mg/Nm <sup>3</sup> (Average value for FY 21-22 stack monitoring)		
	Thermal Oxidizer -I	SPM - 39.08 mg/Nm <sup>3</sup> (Average value for FY 21-22 stack monitoring)		
	Thermal Oxidizer -II	SPM - 36.62 mg/Nm <sup>3</sup> (Average value for FY 21-22 stack monitoring)		
	Slop Fired Boiler	SPM - 67.63 mg/Nm <sup>3</sup> (Average value for FY 21-22 stack monitoring)		

## Part D

### Hazardous Wastes

[As specified under Hazardous Waste (Management and Handling) Rules, 2016]

Hazardous Waste	Total Quantity Disposed (MT)			
	Plant Name/Product	Type of waste	During Last FY (2020-21)	During Currnet FY (2021-22)
<b>From Process</b>	AC2O	Dopp kettle residue	49.06	49.38
	EA 1/2/3	Dopp kettle residue	24.32	0.00
	Acetic acid	Spent catalyst / Soilds	0.00	0.00
	Acetic acid and Derivative	Dopp kettle residue	0.00	0.00
	Diketene & derivatives	Residue Waste	0.00	0.00
	Diketene & derivatives	Tarry waste/residual mass	0.00	0.00
	3 Cyano Pyridine	Kettle Distillation residue	78.28	58.69
	Pyridine & Picoline	Spent catalyst from Pyridine	52.26	45.80
	Fine Chemical Section	Distt. Residue	947.88	1089.97
	Fine Chemical / Pyridine	Waste charcoal / Spent Carbon	0.00	0.00
	QC/Kilo /R&D lab waste	Discarded chemicals	0.94	0.56
	From all sections of plant	Tank sludge	149.40	34.01
	Utility and Power plant	Spent resin	5.60	2.85
	Acetic Anhydrid, Acetaldehyde, Acetic Acid & derivatives from Manufacturing Plant	Dilute Acetic Acid (In-Housegenerated and waste procured from external source as per CPCB SOP under Rule 9)	0.00	0.00
	Fine Chemical Section	Spent Dilute Sulphuric Acid generated from plant	0.00	0.00
	Fine Chemical Section	NaBr/KBr/HBr/NH4Br Solution etc. or salt	0.00	0.00
	Drum Decontamination Section	Contaminated Empty Barrels/Containers/Drums	0.00	110.29
	From all sections of plant	Contaminated Polythene/ drum/packing material	200.02	78.64
	In organic raffinate	Effluent from Pyridine derivatives and Fine chemicals.	12585.32	14579.71
	Organic Raffinate effluent (High TDS and High COD)	Effluent from Pyridine derivatives and Fine chemicals.	46936.50	57727.98
	Residue	Pyridine residue	5590.90	8458.97
	Wastes utilized as PPE or generated during maintenances	Used PPEs , Hand gloves and Cotton used during maintenance of equipments	0.36	0.32

	Glass and plastic bottles utilized for sampling in labUtilities	Discarded sampling / Reagent bottles bottles	4.74	4.84
	Degradation/contamination of products due to break down or process equipment failure or other reasons.	Contaminated / Off specification products	4.599	7.07
	Discarded insulation materialUsed Glass wool	Contaminated and used themocol generated after changing the insulation.	0.00	0.00
		Contaminated and used glass wool generated after changing the insulation.	0.00	0.00
	Tarry waste	Tarry residue genrated form coal	0.00	0.00
	Spent Caustic lye	Spent Caustic lye genrated from fine chemical plant	1386.05	1835.21
	LSHS (Low Sulphur Heavy Stock) Oil Sludge	LSHS (Low Sulphur Heavy Stock) Oil Sludge generated from DG	1.750	1.78
	Spent Dilute Acetic Acid	Spent Dilute Acetic Acid genrated from fine chemical plant	0.00	0.00
	Distillery / Pyridine	Exhausted sieves	0.00	0.00
	CO2 Plant	PPM & Scrubber sludge	0.56	0.78
	R&D	Lab waste	0.00	0.00
	Pyridine derivatives	Spent Catalyst	0.00	0.00
	Miscellaneous waste	Asbestous Gasket and other asbestos containing materials	3.50	9.05
	SPVA	Catalyst waste from ATFE condensor	0.00	0.00
	SPVA & WOOD FINISH	Asbestous Gasket and other asbestos containing materials	0.00	0.00
	Sulfuric acid	Spent Catalyst	0.00	0.00
	Fertilizer	Asbestous Gasket and other asbestos containing materials	0.00	0.00
	Pyridine Derivatives	Spent solvent	540.20	317.56
	Pyridine derivatives	Distillation Residue	0.00	0.00
	Utilities	Waste/ Used oil	6.66	2.55
	Fine Chemical section	Spent catalyst	2.95	0.00
	Formaldehyde	Spent catalyst	0.00	0.00
	E-waste	E-waste Scrap	0.647	0.99
<b>From Pollution Control Facilities</b>	Incinerator	Incineration Ash	0.00	0.00
	Spray Dryer	Spray dried solids	2097.96	2178.84
	CTRO	Silica Sludge	58.30	58.64
	CETP	Chemical Sludge from drying beds	15.95	23.45

**Part E**

**Solid Wastes**

<b>Solid Waste</b>	<b>Total Quantity Disposed (MT)</b>	
	<b>During last financial year (2020-21)</b>	<b>During current financial year (2021-22)</b>
Fly Ash	81274	115460

## **Part F**

**Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.**

<b>Name of the process waste</b>	<b>Disposal Method</b>
Acetic Acid (Spent catalyst)	Product Not manufactured during FY 2021-22
Acetic Anhydride (AC <sub>2</sub> O) dopp kettle residue	Captive Incineration / Co-incineration / Co-processing - at authorized agency/ Incineration at common waste incineration facility.
Acetic acid & Derivative dopp kettle residue	
Diketene & Derivatives residue waste	
Ethyl Acetate (EA) dopp kettle residue	
3 CP kettle distillation residue	
Pyridine Spent catalyst	
Distillation residue from Pyridine & pyridine derivatives	
Pyridine derivative (Waste Charcoal/Spent Carbon )	
Spent Resin	
Discarded chemicals- – QC/Kilo/R&D Lab	
Tank Sludge from all section of plants	
Contaminated Polythene/drum/ packing material	
Inorganic Raffinate from Pyridine & Derivatives	Captive incineration(spray drying) /MEE/ATFD/ Co-incineration / Co processing at authorized agency / Incineration at common waste incineration facility.
Pyridine residue used in-house as Fuel	Used in-house as support fuel in incinerators
Acetic Anhydrid, Acetaldehyde, Acetic Acid & derivatives from Manufacturing Plant Dilute Acetic Acid	Utilisation as per SOP released by CPCB under Rule-9
Fine Chemical Section Spent Dilute Sulphuric Acid generated from plant	Disposal to end user /Authorized buyer
Fine Chemical Section NaBr/KBr/HBr/NH <sub>4</sub> Br Solution etc. or salt	Disposal to end user/authorized buyer/Utilisation as per SOP released by CPCB under Rule 9
Drum Decontamination Section Contaminated Empty Barrels/Containers/Drums	Decontamination at existing Drum Decontamination facility and sale to end user
KMnO <sub>4</sub> Sludge (CO <sub>2</sub> plant)	Disposed in Captive secured landfill (SLF)
Incinerated Ash	
Spray Dried Solids	
CETP Chemical Sludge	
Silica sludge from Cooling Tower RO plant	
Misc. Waste ( Asbestos gaskets & other Asbestos containing material )	
Catalyst from ATFE Condenser (from JACPL)	
Asbestos gaskets & other Asbestos containing material from JACPL)	
Spent Catalyst ( from JACPL)	
Asbestos gaskets & other Asbestos containing material ( from JACPL )	

Spent Solvent	Sold to authorized Reprocessor / Recycler/ Buyer
Pyridine Spent catalyst	
Used oil	
e-waste	Sold to authorized recycler
Fly Ash	Sold to cement industry and partly disposed to land reclamation/ash pond.

## **Part G**

### **Impact of pollution control measures taken on conservation of natural resources and consequently on the cost of production.**

#### **Water conservation and reduction in Effluent during FY 2021-22.**

The following actions are some of the significant steps taken during past years for conservation of raw water and reduction of effluent:

<b>Recycling water during FY-2021-22</b>		
<b>#</b>	<b>Details</b>	<b>Avg (M<sup>3</sup>/Day)</b>
1	Utilization of Condensate of PHE -1 by recycling	628
2	Utilization of Condensate of PHE -2 by recycling	713
3	Utilization of MEE - 1 Condensate	170
4	Utilization of MEE - 2 Condensate	199
5	Utilization MEE CPU Permeate Recycling	219
6	Utilization of treated sewage water in Horticulture	246
7	Utilization of SPRO permeate in process	136
8	Utilization of RO-II permeate by recycling	209
9	Utilization of CTRO Permeate by recycling	806
<b>Total</b>		<b>3326</b>

#### **Effluent Reduction :**

- AZA inorganic raffinate norm reduction by recycling of distilled water
- Raffinate norms reduction by using Existing Steam ejector by substituting with DVP
- Reduction of Inorganic raffinate by 20% with transferring it to SFD instead of ATFD

#### **Waste Reduction :**

- Reduced Effluent and steam Norms in PP-2 by reduction of MEE feed through minimization of CIP by replacement of Steam jet ejector with Dry vacuum pump.
- Reduction of treatment cost by sending low organic content Steam condensate to MEE instead of incinerator.

#### **Energy Conservation :**

Jubilant recognises energy as the most precious resource and has been the precursor of the Indian Chemical Industry in energy conservation efforts. Following are the major energy conservation efforts implemented by the company in FY 2021-22:



1. Waste heat recovery for incinerator-1 by installing new Air Preheater
2. Distribution loss minimization by monitoring and controlling losses
3. Energy Efficient lighting in AI (PH-3), PP-II, HCHO-II, ACH-7 & CDFP Plant by replacing inefficient lighting with LED lighting
4. Steam Norm reduction in Distillery from 1.69 to 1.55 MT/MT by utilisation of waste heat of spent leese
5. Boiler Efficiency improvement by digital initiatives i.e. Automation, Digitalization, Energy Efficient operation
6. Reduction of Power Norms in AC2O-II by Power optimisation
7. Boiler and turbine efficiency improvement by High pressure heater for Feed water-90TPH-2 through Process optimisation
8. Reflux preheating in PP-I to reduce steam consumption in specified Columns by reflux preheating with column overhead vapors
9. Reduction of Coal Consumption in 90TPH-1 Boiler by APH area extension with synchronization of HP Heater operation.

### **Air Pollution Management**

Jubilant Ingrevia Limited has taken following measures for controlling the air pollution:

- **Odour Management**

There will not be any specific source of air emission however, because of the nature of raw materials and processes involved, there are potential for various types of air emission from the process equipment mainly vents of the reactors and storage tanks. Depending on the type and nature of emission, the following approach has been adopted for minimising odour emissions from the proposed plant:

**a) Major Odourous Vents**

Pyridine recovery vents are connected to 2 No's Thermal oxidizer where the vent gasses are incinerated. The flue gasses are then passed through a Waste Heat Recovery Boiler is then wherein steam is generated to the tune of 4 TPH.

**b) Other Odourous vents**

Minimise emission by nitrogen blanketing / chilled water condenser/ scrubbing system in Pyridine storage tanks. (Effluent generated from scrubber will be recycled in the process)

**c) Mildly Odourous vents**

Provision for demister / knock out pots / chilled water condenser / scrubbing system in the vents. (Effluent generated from scrubber will be recycled in the process).

**d) Mildly odourous tanks vents**

Provision for breather valves / condensers.

**e) Fugitive emissions**

- Condenser height reduced from 33 to 24 /27 to improve cooling water circulation system in order to prevent fugitive emissions into atmosphere.

- Scrubber capacity enhanced in 4DMAP plant to prevent fugitive emission into atmosphere.
- Cold trap provided before hot well during toluene distillation to prevent toluene exposure into atmosphere.
- Bund walls to restrict occasional leakages / accidental spillages.
- State of the art double mechanical seal pumps for material transfer.

**Schematics of vent chiller / condenser & nitrogen blanketing is enclosed for reference**



**Chiller to reduce the emission so as to reduce vent losses from the tank**



**PRV for Nitrogen**

**SRV for N2**

**Breather Valve**

**Blanketing**

**Blanketing**

**NITROGEN BLANKETING SYSTEM ON STORAGE TANKS**



**Chiller attached to vent of fresh pyridine Storage tank at CPC plant.**

### **CO<sub>2</sub> emission from fermentation house**

JVL has installed CO<sub>2</sub> recovery plant where CO<sub>2</sub> emitted during fermentation is collected, washed, purified and made suitable for food grade consumption.

The CO<sub>2</sub> collected and washed with water and potassium permanganate and compressed. The CO<sub>2</sub> is further treated with activated carbon to avoid major odour. The unique feature of CO<sub>2</sub> recovery plant is distillation of liquid CO<sub>2</sub> so as to remove the traces of impurities and make it suitable for food grade. It may be noted that JVL is major supplier of CO<sub>2</sub> to M/s Coca Cola and Pepsi in Northern India.

We have also installed Continuous Online Emission Monitoring System for 24x7 hrs monitoring.

In additions to this VOC detector has been installed at main gate to detect VOC levels in ambient air.

### **Dust Suppression**

We have developed layers of tree plantation near boundary walls.

Now as a additional effort towards dust suppression , we have installed fixed sprinkler system across the railway line during loading and unloading of coal.

In addition to above efforts, we have installed Dust extraction and Dust suppression system on coal conveyers.

As well as we have installed ESPs and ash silos for storage of Fly ash and running dust collector machine for sweeping of roads.

## **OTHER FACILITIES FOR POLLUTION CONTROL**

### **SECURED LANDFILL**

JVL is committed for safe, systematic and scientific waste management techniques. In order to dispose the hazardous wastes such as incinerated ash and spray dried solids etc. in safe and scientific way, JVL has developed a Secured Landfill (SLF) first in U.P of capacity 11,000 MT (first cell) for captive use . The design of the landfill is given by National Productivity Council & is as per the CPCB guidelines.

### **ASH POND**

The ash pond is located around 2.2 km west of the existing plant. The ash pond was developed in two phases. The first phase 3.6 lac cubic meter is closed and plantation activity is in-progress whereas the other phase of 3.5 lac cubic meter is used to store the ash generated in emergency.

## **Part H**

**Additional measures/ investment proposal for environmental protection including abatement of pollution.**

**During FY 2021-22 following initiatives were taken for environment protection through reduction in norms and indirectly reducing environment load.**

1. ACH Norm reduction in Alpha-Gamma by Rreactor replacement and process optimisation.
2. Steam reduction by Installation of fully automatic WHRB in reactor outlet.
3. Reduction of Effluent and steam Norm in PP-2 by replacement of Steam jet ejector with Dry vacuum pump.
4. Preheating of boiler feed water and raffinate in Incinerator-1 by using flue gas.
5. Raffinate Norm reduction in 3 CP by recycling of raffinate and replacement of steam ejector with Hydrojet ejector.
6. Reflux preheating in PP-I to reduce steam consumption in specified Columns
7. Reduction of Effluent & steam norms in PP-1 by replacing DVP with steam ejector
8. Fuel replacement of HSD with LSHS in 3CP
9. Steam Norm Reduction in Distillery by Installation of SOPT



## **Part I**

### **Any other particulars in respect of Environmental protection and abatement of pollution.**

#### **1. Greenery development Program:**

An afforestation programme at Jubilant Ingrevia Limited is an on going continual activity to provide green cover in and around company area to “Freshen Up” the surrounding environment.

Thousands of saplings planted every year are growing into trees, providing a canopy of Thick foliage all around the plant. Plant species include :

- Chitvan (*Alstonia scholaris*)
- Kadam (*Neolamarckia cadamba*)
- Neem (*Azadirachta indica*)
- Ficus (*Ficus benamina*)

During FY 2021-2022, approx. 1 Lacs saplings were planted.



**Tree plantation in Premises**





**Trees planted at SLF area**



**Tree Plantation nearby railway yard**



**Trees planted near Catalyst Plant**

2. We have adopted 195 Nos. of Village ponds by duly agreement with “ Gram Panchyats” and constructed rain water recharge structure at each Pond. Being a joint ownership of ponds we are doing maintenance and cleaning of ponds in pre and post monsoon regularly. As a result, we are able to recharge rain water more than the ground water extracted for industrial use.

A List of adopted ponds consisting GPS location, Area of pond and recharge potential is attached as **Annexure-2**

3. We have taken many steps towards water conservation and published the same. A copy of Brochure is attached as **Annexure-3**.



## CSR Activities



**JUBILANT  
BHARTIA  
FOUNDATION**

## **PROJECT BRIEFS**



***JUBILANT  
BHARTIA  
FOUNDATION***

## EDUCATION

- Muskaan Fellowship
- E-Muskaan
- CLAP
- Khusiyon Ki Pathshala

## HEALTH

- JBF Medical Center
- Jubi Care
- Varishtha Samman Health Campaign
- Swasthya Prahari

## LIVELIHOOD

- Project Samriddhi
- Jubi Farm
- Pashu Sakhi
- Vocational Training Center

## RURAL DEVELOPMENT

- Jan Sanchetna
- Installation of Hand pumps
- Community Meet



## Activities

- Jubilant Youth Development program is leadership program where we focus on sensitizing and enhancing capacity of youths.
- No . of fellows- **10**

- Awareness program on National girl Child day, women's Day were done in community and schools.
- Apart from creating awareness among the society sessions were also done to develop confidence among the fellows and address large crowd on key issues of society.
- Republic Day was also celebrated by them with the community.
- Muskaan fellows were supporting around **240** children of different schools in Math's and English.
- Around **110** sessions were done on Khushiyaon Ki Pathshala on 8 values that is love, gratitude, humility, respect , kindness, trust, integrity and commitment.
- Different competitions were also organized by them in the schools.



**240**

**Students were covered**



**110**

**Sessions were done in  
different schools and  
community**



**1200**

**indirect beneficiary**



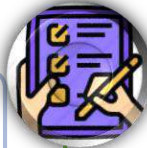








## ह-लुशकान



### Activities

- This project aims at revolutionizing the education system through digitization which can be resilient and adaptable during the changing unpredictable times.
- To create and initiate a hybrid model of learning by installing smart TVs across all the target government schools.

- *In order to create and initiate a hybrid model of learning smart tv' s has been installed in 65 schools.*
- *Pen drive loaded with the content has been installed for the content in the smart TVs to facilitate the Digi-learning through audio-visuals.*
- *Content from class 1-8 is in offline mode .*



**9464**

**Students were covered**



**317**

**Sessions were done in  
different schools and  
community**



**47320**

**indirect beneficiary**











## Activities

Working on the principle of value based education Khushiyan Ki Pathshala is a project where teachers are trained to impart values such as- love, respect, gratitude, humility, kindness, trust etc. to the students through activities for overall development.

- **2 Learning Retreat of 50 Teachers each has been completed.**
- **50 Primary and upper primary schools have been completed.**
- **More than 35 schools have conducted sessions of values (love, gratitude, humility, respect, kindness, trust, integrity and commitment) with students with the help of activities like selfie frame.**



**7500**

**Students were covered**



**50**

**Teachers**



**37,500**

**indirect beneficiary**











## Activities

- To address the issues related on online education HP in collaboration with JBF started CLAP project. Under this laptop and Wi-Fi facility is provided to registered students.

- Under this project, students from class 6-10 are registered.
- Laptop with pre-loaded content is provided to each student for 2 hrs.
- This vehicle will move to two locations daily empowering **240** students.
- The vehicle will also have HP server and Wi-Fi point in order to provide free Wi-Fi up to 500m around the vehicle location.



**1691**

**Students were covered**



**227**

**sessions**



**8455**

**indirect beneficiary**













### Activities

- To promote health-seeking behaviour and provide effective basic healthcare to the community JBF is running Medical Centre at various locations in India. The main objective is to reach out to the vulnerable communities with a lack of good health services and basic information of diseases.

- The basic healthcare services are rendered to the community through a medical clinic, JBF Medical Centre at Gajraula location.
- The centre provides various services to the patients as Outpatient Department (OPD), Day Care, Lab Tests, Directly Observed Treatment, Short-course (DOTS) for Tuberculosis, Integrated Counseling and Testing Centre (ICTC), X-Ray etc.
- It is also an Ayushman center and covid centre
- Free health camp in collaboration with other hospitals takes place every month.
- Artificial Limb distribution camp was organized in collaboration Narayan seva sansthan.
- Health camp at Tigri mela was also organized.
- Nutrition awareness session was done in different schools.



**15587**

**Patients were covered**



**50000**

**Population Reach**



**140**

**Village has been covered**















**4761**

People have been covered



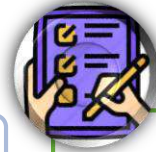
**23805**

Population Reach



**32**

Village has been covered



### Activities

The main Objective of Varishth Samman health campaign is to do overall health checkup and home visit of elderly people.

- The test included hemoglobin, full body checkup and diabetes.
- This helps to keep us health record of the elderly people.



# Varishth Samman Health Campaign





**10989**

**children have been  
registered**



**5600**

**Pregnant women have  
been monitored**



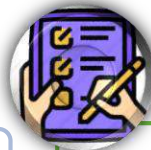
**32**

**Village has been  
covered**



**8700**

**Adolescent girls has  
been covered**



## Activities

Swasthya Prahari are basically key element which keeps eye on health of pregnant women, children and adolescent girl.

- Swasthya Prahari are basically key element which keeps eye on health of pregnant women, children and adolescent girl.
- Under this initiative, we keep record of Blood pressure, weight and overall growth of pregnant and lactating mother. Special attention is provided to malnourished children.









## Activities

Through Vocational Training Centre, JBF is conducting various skill development programs for the youths with forward linkages for placement and self-employment.

- The training programs has a wide array of trades like mobile & tractor repairing, stitching, retail management, soft skill development and beautician courses.



**281**

**People have been  
trained in different  
trades**



**164**

**Village has been  
covered**





# Vocational Training Center





## Overview

Jubilant Foundation and Bhartia have initiated the Paryavaran Sakhi project to generate green belt and to provide the self-sustainable source of livelihood to the rural women



## Activities

- Identification of the villages and waste/govt. land.
- Plantation of **50,000** neem saplings.
- Selection of Paryavaran Sakhis & formation of SHG.
- One Paryavaran Sakhi will be responsible for the maintenance of **300** neem tree.
- **167** Paryavaran Sakhis
- The JBF ensures/guarantees a end to end market linkage of harvest obtained from NEEM plantation after 2-3 years.



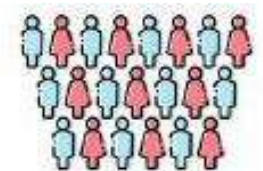
**50,000**

Neem plants have been planted



**835**

people will be indirectly benefitted through Paryavaran Sakhi Project



**167**

Paryavaran Sakhis









## **Jubi Farm:**

Jubi Farm is a sustainable and multi-stakeholder initiative that is conceived to enhance the profitability and generate income opportunities in farming for the migrants returning back to their natives. The initiative is recognising both the male and female equal stakeholders of the farmland. It shall empower farmers by facilitating access to modern and sustainable farming methods. Under this initiative the saplings of mango, guava, amla, lemon, eucalyptus trees were distributed among the farmers.



## Overview

To enhance the profitability and generate income opportunities in farming for the migrants and farmers, JBF have initiated Jubi Farm project to empower and facilitates access to the modern and sustainable farming methods



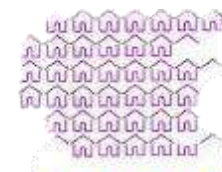
## Activities

- Identification and Registration of **500** farmers.
- Field visit of agriculture fields for the identification of the number of fruit tree saplings.
- **60,000** fruit tree saplings distributed and planted. (Mango, Guava, Jackfruit, Poplar, Eucalyptus).
- **60** Krishi Pathshala being organised at 30 villages.
- Institutional visit organised for the 50 selected farmers at Pantnagar.
- **2** Farmers Training was organised to aware them about the organic farming and latest farming technologies.



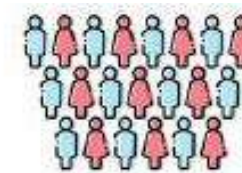
**60000**

Fruit trees have been planted



**2500**

people will be indirectly benefitted through Jubi Farm Project



**500**

Farmers















## Goal

JBF in collaboration with the The Goat Trust initiated a pilot project on the promotion of Goatry by providing health services and marketing linkage through pashu bazar in the 10 villages of Gajraula, U.P.



## Activities

1. Base line survey of **10** villages.
2. Identification & Training of Pashu Sakhis.
3. Registration of **500** goat farmers.
4. Awareness & Health Camps to promote Pashu Sakhis
5. Bakri Palan Pathshala.
6. Setting up livestock trade center.
7. Setting up IT based Goat Trading process and linkages with Pashu Bazar.
8. Setting up goat manure production & packaging centre.
9. Technical feasibility study of Goat meat processing & home delivery model
10. End line survey and reports with case studies



2500

people indirectly will be get benefitted through Pashu Sakhi



500

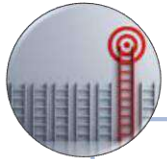
goatry farmers will connect through Pashu Sakhi project



10

Pashu Sakhis will provide basic health services to the goats.





## Goal

JBF in collaboration with the The Goat Trust initiated a pilot project on the promotion of backyard poultry in the 10 villages of Gajraula, U.P.



## Activities

- Selection, recruitment and induction of Implementation team
- Selection of **1** local rural youth/Technical expert for training on Livestock Business center process and technical skills in poultry
- Identification of existing & potential **100** poultry farmers , present problems analysis and business counseling
- Organize awareness building & technical training in field
- Setting up local brooding services through Supply of chicks
- Setting up Poultry trade center at village and cluster level to provide live body weight pricing and sales linkages
- Provide financial linkages with banks and various government schemes
- Field level support and monitoring results



500

people indirectly will be get benefitted through Pashu Sakhi - Poultry project



100

poultry farmers will connect through Pashu Sakhi - Poultryproject



10

Pashu Sakhis will provide basic health services to the chickens



1 local youth will provide doorstep technical, input linkages and marketing services to 100 poultry farmers

1.	Number of Paryavaran Sakhis	10
2.	Number of Goat Farmers registered	500
3.	Number of Poultry Farmers Registered	100
4.	Average Monthly Income of Pashu Sakhis (Dec 21 to Feb 22)	Rs. 656/month

S. No.	Activities	Status		
		Target	Achieved	Remarks
1	First Aid	60	80	Goat Farmers are aware now about the Pashu Sakhis in their villages and have started to take benefit of the project.
2	Number of AI	40	36	
3	Deworming	350	420	
4	Treatment	NA	19	(Treatment done on need basis)
5	Livestock Farmer School/Bakri Palan in village	15	14	<b>420</b> goat farmers are now aware about the common diseases occurred to the goats and how they can do the goat rearing more effectively.



# GALLERY (GOATRY)



Artificial Insemination being done  
in Allipur, Gajraula



Deworming tablets being given to  
the goats in Baselli, Gajraula



Treatment being done by Pashu  
Sakhi in Baselli, Gajraula

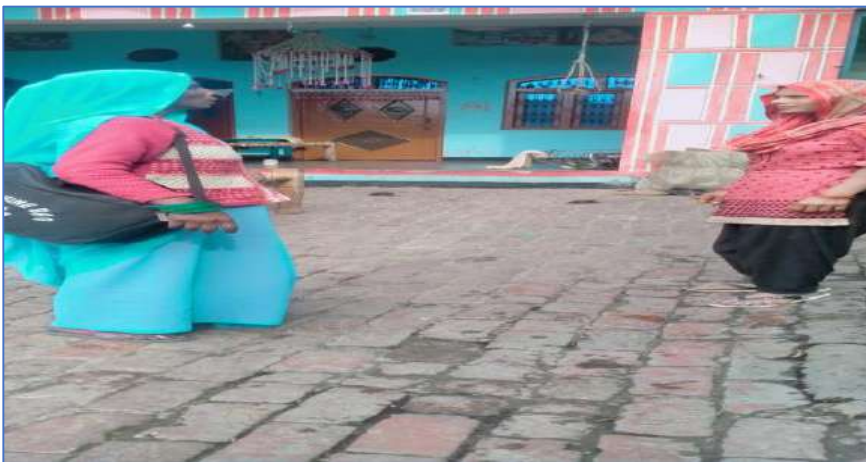


Bakri Palan Pathashala





Awareness Session being conducted by the TGT in collaboration of the Veterinary Officer on goatry.



Door to Door visit being done by the Pashu Sakhis to provide health facilities to the goats.





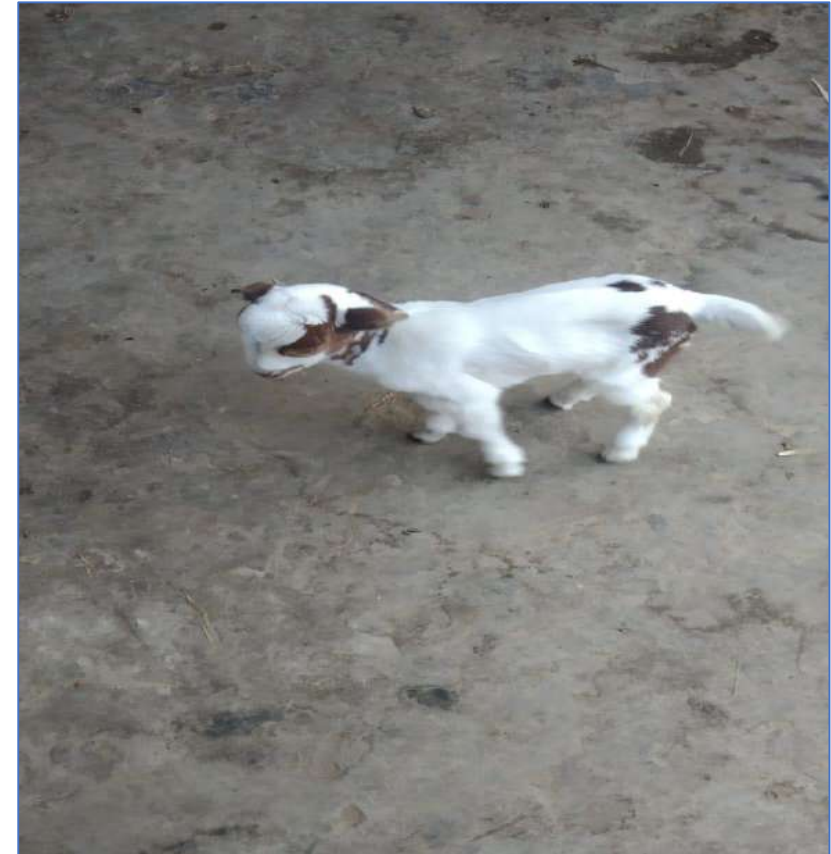
Distribution of track register and putting up flexes in the houses of Pashu Sakhis.





**Bakri Pashu Palan Training being conducted by the  
TGT representatives.**





**First goat kid successfully born through A.I. at Dariyapur village**



# GALLERY (POULTRY)



Interaction with the poultry farmer  
at Moharka Patti, Gajraula



Interaction with the poultry farmer  
at Navada, Gajraula



Interaction with the poultry farmer  
at Sihali Jageer, Gajraula



TGT representatives interacting with  
the community regarding poultry.



Monitoring of the hen house of  
poultry farmers for chick distribution



TGT Stall at Farmers Meet  
conducted at Sultanther, Gajraula





**Poultry Data Collection being done by the Pashu Sakhi**



**Brooding Unit at Chaubara and Sihali Jagir**





**Poultry Training of backyard poultry farmers**



## **Jan Sanchetna:**

The people living in disaster prone areas doesn't know how to prepare themselves in pre and post disaster situation. Jubilant Bhartia Foundation initiated "Jan Sanchetna" which means to sensitized the people about the various disasters and equip them with the skills and the knowledge to tackle disaster which occurs in their areas. Apart from they will be also get trained for how to provide the first aid and fire like situation occurs in their community.



Locations	VDMC		Village	
	Target	Achieved	Target	Achieved
Gajraula	150	150	15	15

JAN SANCHETNA			
ACTIVITIES DETAILS			
Sr. No.	Activities	Target	Achieved
1.	Village Selection	15	15
2.	ERT Selection	150	150
3.	Survey of Villages	15	15
4.	VDMC Training	15	15



1<sup>st</sup> phase of training being initiated in Gajraula, U.P.



**Overview of the COVID-19 pandemic**  
A high-level overview of emerging issues

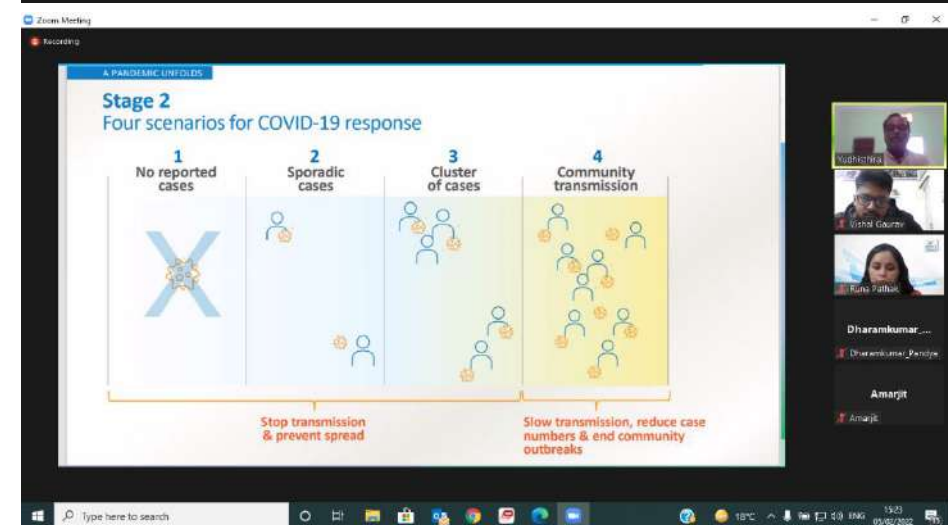
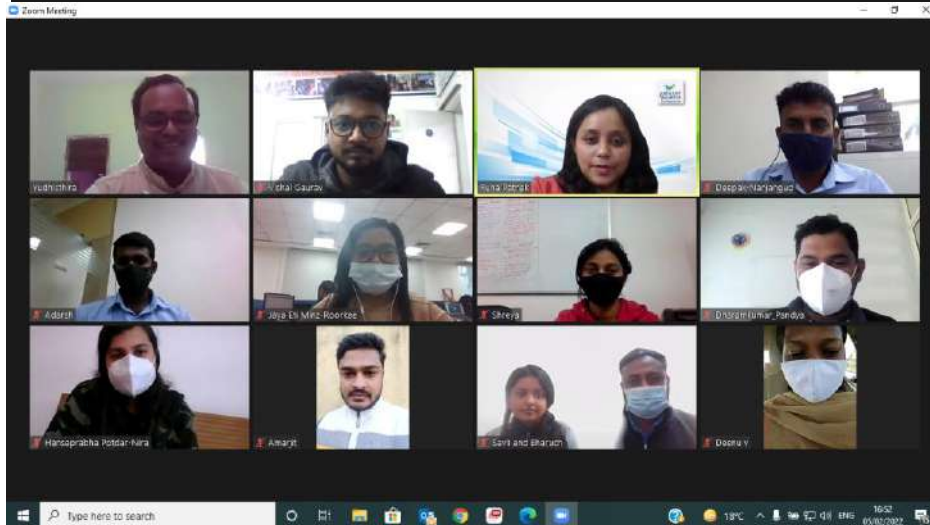
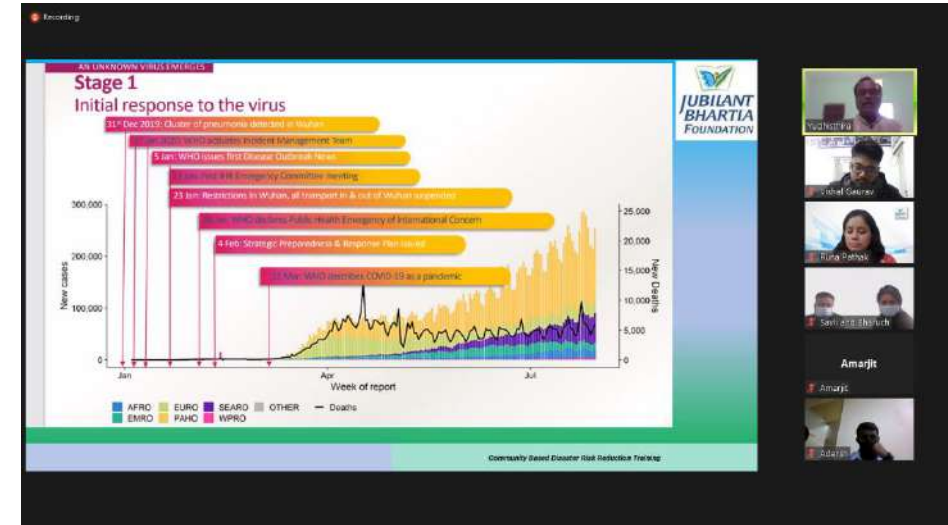
As the COVID-19 pandemic evolves, several distinct questions and challenges arise...

**Stage 1** An unknown virus emerges  
**Stage 2** A pandemic unfolds  
**Stage 3** The pandemic accelerates  
**Stage 4** A multi-faceted pandemic  
**Stage 5** Medical counter measures

(Photo source: IAG Bihar)

Community Based Disaster Risk Reduction Training

**JUBILANT BHARTIA FOUNDATION**



**Training Session being conducted by Mr. Yudhisthira Panigrahi on “COVID -19 Pandemic”**

Zoom Meeting

NT BHARTIA FOUNDATION

## What is Cyclone ?

A cyclone is a system of wind that moves rapidly inward with a low-pressure area in the middle. In meteorology, it refers to the large mass of air that surrounds a strong atmospheric center. The internal winds moving over an area of low pressure allow us to view the storm in a spiral shape.

### TROPICAL CYCLONE

Diagram illustrating the structure of a Tropical Cyclone in the Troposphere. The diagram shows the eye, eye wall, and spiral rain bands. Key features labeled include: Eye, Eye Wall, Spiral Rain Bands, Clouds, and the Low Pressure area in the center. The diagram also indicates the height of the cloud tops (up to 18,000 m) and the low-level jet stream.

### Type of Cyclone ?

#### TEMPERATE CYCLONES

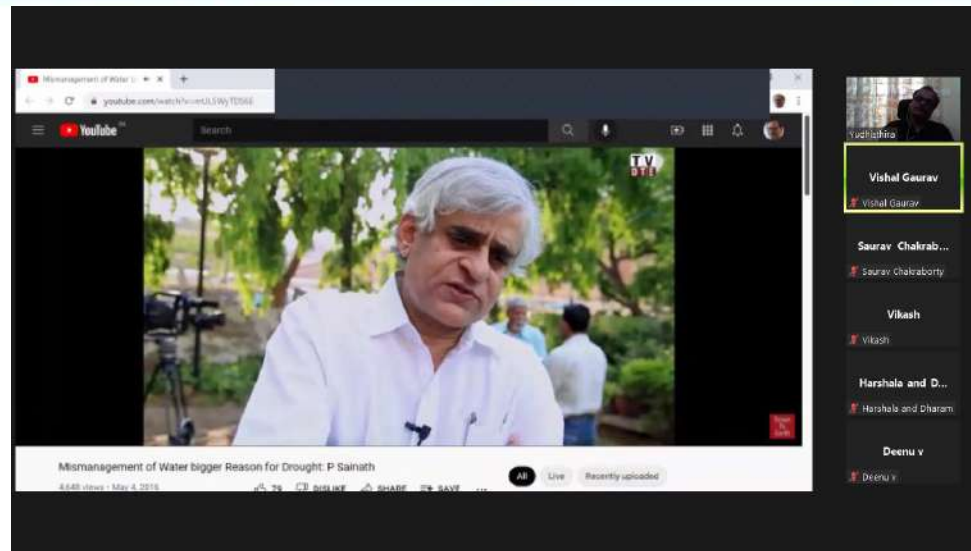
- CAUSED IN MIDDLE AND HIGH LATITUDES
- CAUSED IN FRONTAL ZONES
- OCCUR IN BOTH LAND AND SEA
- COVER A LARGER AREA

Diagram illustrating the structure of a Temperate Cyclone, showing the cold front, warm front, and occluded front. The diagram also shows the low pressure area in the center and the high pressure area on the outside.

Zoom Meeting interface showing participants: Vishal Gaurav, Yashika, Deepak, Amarjit, Harshika, and Saurav Chakraborty. A chat window displays a message from Amarjit to Me: "puchne saheh saheh hai ya?"

Zoom Meeting interface showing participants: Yashika, Vishal & Shreya, Sruja Patra, Deepak, Alok Dha, Saurav Chakraborty, Amarjit, and Adarsh.





Mismanagement of Water bigger Reason for Drought: P Sainath

6:55 - 10:00 - May 4, 2018

Live Recently uploaded

Participants: Vishal Gaurav, Saurav Chakrabarty, Vikash, Harshala and D., Deenu v.

### What is Drought ?



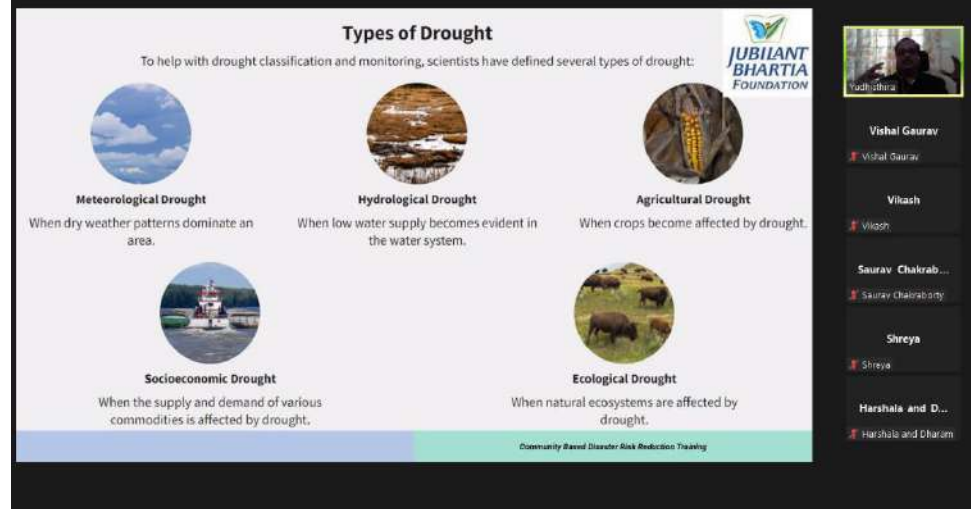
Drought is generally **defined** as “a deficiency of precipitation over an extended period of time (usually a season or more), resulting in a water shortage.”

Community Based Disaster Risk Reduction Training

Participants: Vishal Gaurav, Vikash, Saurav Chakrabarty, Shreya, Harshala and D., Harshala and Dharan.

### Types of Drought

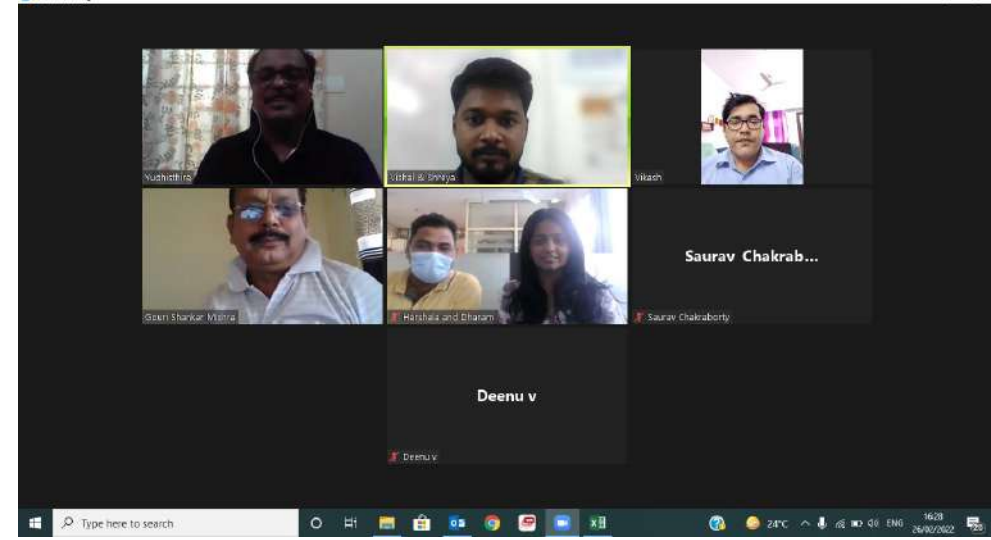
To help with drought classification and monitoring, scientists have defined several types of drought:



- Meteorological Drought**: When dry weather patterns dominate an area.
- Hydrological Drought**: When low water supply becomes evident in the water system.
- Agricultural Drought**: When crops become affected by drought.
- Socioeconomic Drought**: When the supply and demand of various commodities is affected by drought.
- Ecological Drought**: When natural ecosystems are affected by drought.

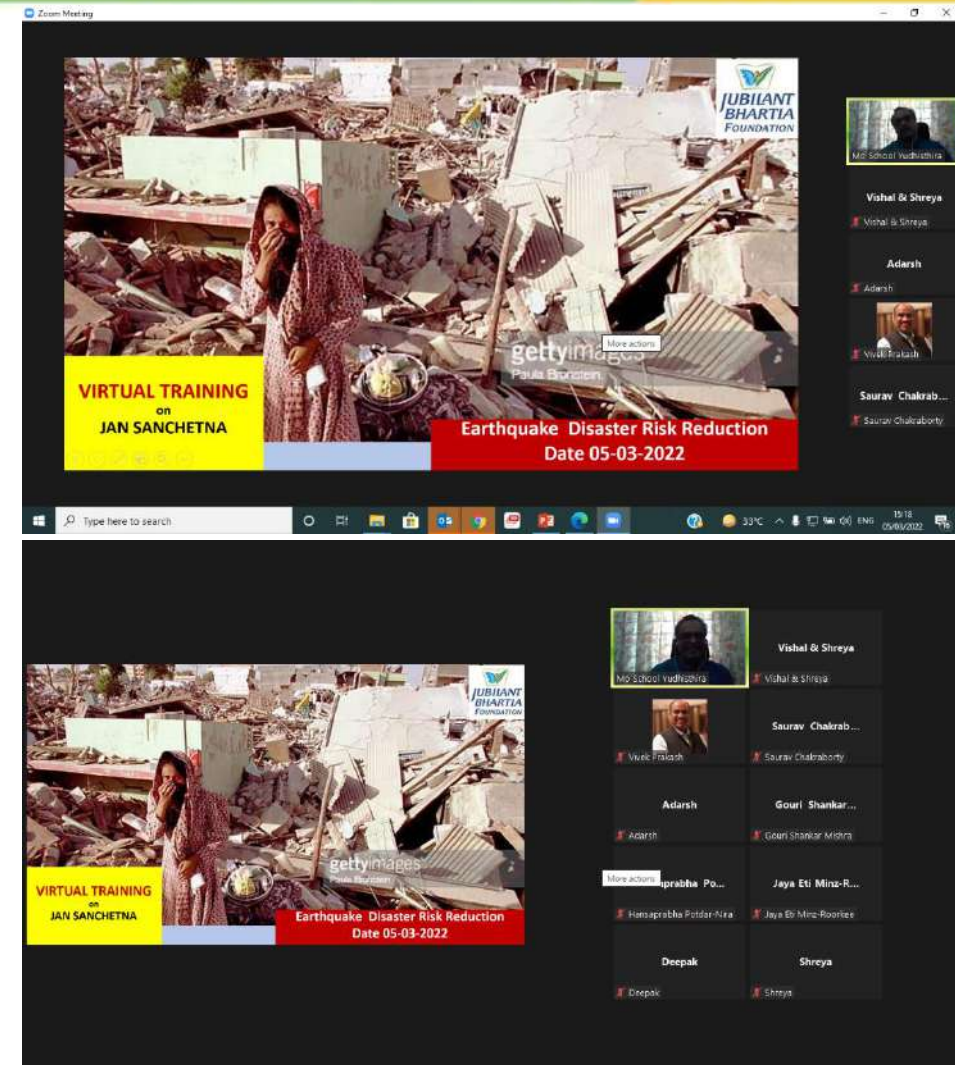
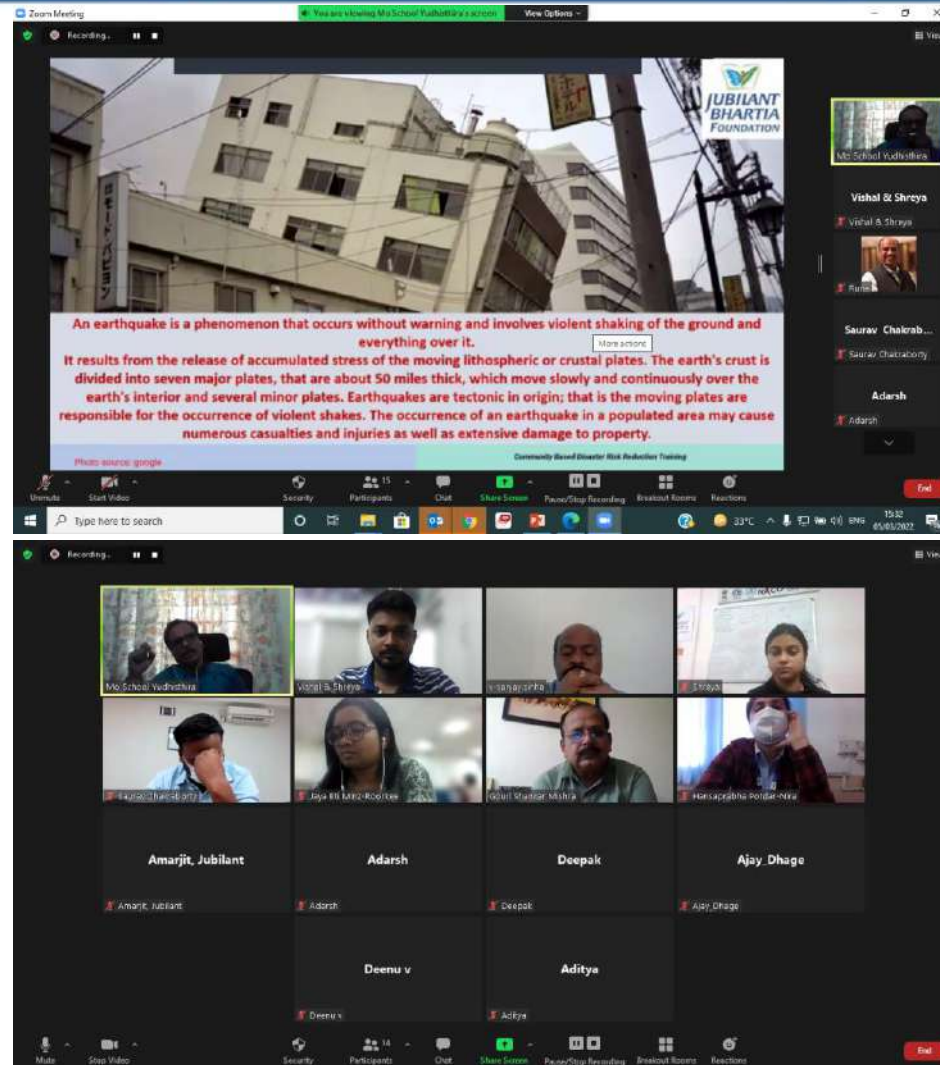
Community Based Disaster Risk Reduction Training

Participants: Vishal Gaurav, Vikash, Saurav Chakrabarty, Shreya, Harshala and D., Harshala and Dharan.



Participants: Vishal Gaurav, Vikash, Saurav Chakrabarty, Shreya, Harshala and D., Deenu v.

**Training Session being conducted by Mr. Yudhisthira Panigrahi on “Drought Disaster Risk Reduction”**



Training Session being conducted by Mr. Yudhisthira Panigrahi on “Earthquake Disaster Risk Reduction”





Training of CSR Team on Jan Sanchetna



Training of VDMC held at Navada, Gajraula

## Community Hand pumps:

**50** Indian Marka Handpumps have been installed in **25** villages. Will provide clean water drinking to approx. **50,000** people in the community.

## Open Gym:

**1** Open Gym have been constructed at Gajraula. Approx. **250** children and adults will utilise it to live a healthy life.

## Installation of Oxygen Plant at CHC and JBFMC:

**2** Oxygen plant have been setup at the Community Health Center and JBFMC to ensure the availability of oxygen during COVID 2<sup>nd</sup> wave. It helps to save around **3000 patients** suffering from COVID-19 during pandemic.





Installation of Hand pumps





**Installation of Oxygen Plant at CHC, Gajraula**





Open Gym Inauguration



## Participants:

50 community stakeholder

## Objective:

Bringing community together to work for a larger goal.

## Activities:

- To make stakeholders understand how Jubilant working for the betterment of the society.
- Tour of the plant to make them understand how plant works.
- Interaction with the department heads and take valuable suggestions by the stakeholders.







Community Meet organised by JBF

## Pharmova (JPL)

Head	Bud. Allocated	Expense	Exp. In %
HEALTH	9134216	9308515	101.9082
EDUCATION	2138968	2142483	100.1643
LIVELIHOOD	4667456	4383875	93.92429
RURAL DEVELOPMENT	3587464	3528788	98.36442
ADMINISTRATION	609600	601330	98.64337
<b>Total</b>	<b>20137704</b>	<b>19964991</b>	<b>99.14234</b>

**\*Note:**

**Rs. 172713 is taken under provision.**



## Ingrevia (JVL)

Head	Bud. Allocated	Expense	Exp. In %
HEALTH	4240000	4243040	100.0717
EDUCATION	1000000	650583	65.0583
LIVELIHOOD	360000	40120	11.14444
RURAL DEVELOPMENT	0	0	0
ADMINISTRATION	0	0	0
<b>Total</b>	<b>5600000</b>	<b>4933743</b>	<b>88.10255</b>

**\*Note:**

**Rs. 666257 is taken under provision.**



**JUBILANT  
BHARTIA**  
FOUNDATION

**Thank you**

**Jubilant Bhartia Foundation**

1A, Sector 16A, Noida - 201 301, Uttar Pradesh, India

Email: [jbf@jubl.com](mailto:jbf@jubl.com) | [www.jubl.com](http://www.jubl.com)



## Annexure-1

### Approved Product List Chemical Unit – 1

S. No.	Products	Consented Capacity (TPM)
1	Acetaldehyde	20550
2	Acetic Acid & derivatives	16004.2
3	Acetic Anhydride	3250
4	Ethyl/butyl Acetate	7452.1
5	Formaldehyde	11700
6	Diketene Ester Derivatives	500
7	Diketene Amide Derivative	333.3
8	Diketene Arylide derivatives	500
9	Other Ketene & Diketene Derivatives	166.000

### Approved Product List Chemical Unit – 2

S. No.	Products	Consented Capacity (TPM)
1	Pyridine & Picoline	4092.33
2	3 Cyano Pyridine and 4 Cyano Pyridine	568.83
	<b>Fine Chemicals</b>	
	<b>MPP products</b>	
3	Lutidine & Collidine and Derivatives	125
4	Amino Pyridine and Derivatives	133.33
5	Piperidine and Derivatives	71.67
6	Pyridine carboxylic acids and derivatives	152.08
7	Chloro/Fluoro/Bromo/Hydroxyl Pyridine and derivatives	243.33
8	Pyrazine and derivatives	91.25
9	Vinyl Pyridines	45.63
10	Catalyst for pyridine carboxylic acids	45.63
11	Pyridine ethanol/ Aldehydes & Ketone derivatives	30.42
12	Cycloalkino pyridine & derivatives and aliphatic derivatives	2.28
13	Aromatic derivatives	12.917
14	Quinoline derivatives	1.67
15	Hydrogenated & Aliphatic Amines Derivatives	41.25
16	Pyrimidine derivative	1.67
17	Alkyl Pyridine Mixture	333.3
18	Piperidine and Derivatives (Repackaging & Trading)	166.62
19	Aliphatic derivatives	4.17
20	Per acetic acid	125
21	Sanitizer	200.00

### Approved Product List Distillery Unit

S. No.	Products	Consented Capacity
1	Ethyl Alcohol (94%)	183 KLD (Non-monsoon) 133.01 KLD (Monsoon)
2	Anhydrous Alcohol (99.5%)	150 KLD
Note: Distillery plant capacity is 305 KLD		

### Approved Product List Power Plant

S. No.	Products	Consented Capacity
1	Power generation	37.5 MW through Steam Turbines
		10.5 MW through DG Sets

Details of Recharge structure constructed					
S.No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum
1	Koural	28°59'08.27"	78°20'46.73"	4050	19190.9
2	Afjalpur Loot	28°53'16.8"	78°18'17.8"	5790	28226.3
3	Lambia	28°54'19.8"	78°16'55.8"	7890	30771.0
4	Kumrala	28°50'19.4"	78°12'24.7"	5140	30069.0
5	Kuwakhara	28°55'28.5"	78°18'03.7"	40720	238212.0
6	Chuchela Kala	28°59'57.70"	78°15'41.98"	11040	64584.0
7	Sultan Ther	28°47'15.91"	78°13'04.81"	4500	13338.0
8	Jalalpur Kalan	28°50'41.29"	78°19'27.14"	5880	34398.0
9	Dhakiya Bhoor	28°53'13.01	78°15' 13.07	11490	36969.1
10	Chandarpur Khadar	28°33'39.87	78°16' 43.79	4250	10773.8
11	Chohadpur/Salarpur	78°17'03.24"	28°49'47.92"	2350	12418.6
12	Dhanori Mafi I	78°33'40.91"	28°81'44.93"	4780	27963.0
13	Moharka	28°48'19.21"	78°11'08.23"	2080	12168.0
14	Moharka	28°48'19.33"	78°11'05.12"	1880	10998.0
15	Mohraka	28°49'18.48"	78°11'16.7892"	1380	8073.0
16	Mohraka	28°48'52.56"	78°11'25.7244"	1040	6084.0
17	Shahpur Farraspura	28°50'45.09"	78°29'08.79"	13190	77161.5
18	Patai Kalsa	28°48'26.31"	78°33'41.11"	17250	100912.5
19	Haiwatpur Banjara	28°42'47.52"	78°20'1.44"	3600	21060.0
20	Haiwatpur Banjara	28°42'57.24"	78°19'26.23"	2430	14215.5
21	Daudpur Jageer	28°42'42.12"	78°20'1.38"	2630	15385.5
22	Daudpur Jageer	28°40'36.12"	78°21'8.65"	1650	9652.5
23	Daudpur Jageer	28°42'40.68"	78°19'41.5128"	14200	83070.0
24	Telipura Khalsa	28°46'7.32"	78°23'12.63"	7710	45103.5
25	Telipura Khalsa	28°46'10.56"	78°22'57.44"	10400	60840.0
26	Ghosipura	28°46'58.44"	78°22'31.84"	1900	11115.0
27	Sevda	28°39'20.16"	78°27'59.37"	6080	35568.0
28	Rajha	28°41'44.88"	78°29'10.31"	13590	79501.5
29	Ainchora Kamboh	28°41'58.20"	78°28'08.82"	4080	23868.0
30	Ainchora Kamboh	28°41'52.44"	78°28'32.88"	4330	25330.5
31	Ainchora Kamboh	28°42'22.68"	78°28'17.77"	2350	13747.5
32	Ainchora Kamboh	28°42'31.68"	78°28'28.02"	3040	17784.0
33	Nehroli	28°43'12.72"	78°28'32.99"	6070	35509.5
34	Nehroli	28°43'12.36"	78°28'32.08"	5140	30069.0
35	Nehroli	28°43'28.92"	78°28'29.7228"	10190	59611.5
36	Aitmadpur Bhatpura	28°43'18.84"	78°29'44.26"	3120	18252.0
37	Ekrotiya	28°42'12.24"	78°30'46.86"	5470	31999.5
38	Kurkawali	28°37'21.00"	78°30'15.33"	5260	30771.0
39	Kurkawali	28°37'26.76"	78°30'15.96"	4500	26325.0
40	Kurkawali	28°38'04.92"	78°30'58.89"	2750	16087.5
41	Baserataga	29°02'40.32"	78°28'18.20"	12590	73651.5
42	Tokra	28°51'48.6"	78°10'48.6588"	3400	19890.0
43	Tokra	28°51'46.8"	78°10'47.4096"	1780	10413.0
44	Manni Khera	28°38'35.16"	78°25'33.78"	5470	31999.5
45	Manni Khera	28°38'27.24"	78°26'35.60"	8370	48964.5
46	Koural	28°58'41.67"	78°20'37.65"	8410	49198.5
47	Koural	28°59'19.17"	78°20'49.68"	7450	39079.0
48	Rajehda Bahadurpur	28° 45' 42.696" N	78° 21' 30.024" E	12750	57183.8
49	Dhakka	28°41'51.13"	78°22'54.13"	6340	37089.0
50	Katai	28°48'42.87"	78°17'29.60"	8900	49114.7
51	Kuda Mafi	28°57'10.13"	78°20'47.28"	24890	117941.3
52	Agrola Kala	28°45'58.55"	78°14'10.61"	15000	87750.0
53	Aalampur	78°28'12.21"	28°79'53.11"	4080	23868.0
54	Dhanori Mafi IV	78°33'36.93"	28°81'76.02"	400	2340.0
55	Fhattepur sumali/ Chitra I	78°24'04.94"	28°89'82.10"	3760	21996.0
56	Salempur	78°24'73.15"	28°87'28.41"	3360	13979.3
57	Bhartal Sirsi	28°36'07.56"	78°30'24.55"	4250	24862.5
58	Bhartal Sirsi	28°36'01.44"	78°30'32.14"	4780	27963.0



S.No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum
59	Bhartal Sirsi	28°36'06.12"	78°29'33.61"	4620	27027.0
60	Khagupura	28°36'23.40"	78°31'43.27"	6920	40482.0
61	Dahpa	28°38'30.60"	78°27'24.43"	8090	47326.5
62	Dahpa	28°38'28.14"	78°26'59.27"	6920	40482.0
63	Dahpa	28°38'34.80"	78°26'49.20"	3930	22990.5
64	Dahpa	28°38'48.66"	78°27'12.40"	3760	21996.0
65	Dahpa	28°38'54.44"	78°27'02.43"	2550	14917.5
66	Dahpa	28°38'48.14"	78°26'56.78"	1240	7254.0
67	Rudayan	28°30'02.90"	78°29'37.15"	7710	45103.5
68	Mehrana	28°34'44.76"N	78°27'3.09"E	3280	19188.0
69	Mehrana	28°34'9.84"N	78°28'0.11"E	1090	6376.5
70	Sujadpur	28°34'45.59"N	78°28'4.37"E	1300	7605.0
71	Sujadpur	28°34'36.12"N	78°28'9.70"E	2900	16965.0
72	Sujadpur	28°34'9.84"N	78°28'0.36"E	2830	16555.5
73	Sirsa Kumar	28°54'38.91"	78°31'50.26"	7570	44284.5
74	Imaliya	29°03'53.14"	78°17'55.95"	11630	68035.5
75	Adalpur Samdoo	29°02'26.30"	78°26'03.91"	7200	42120.0
76	Sakatpur	28°44'14.8554"	78°30'25.2354"	20240	118404.0
77	Isapur Shumali/ Musslepur	28°56'54.24"	78°16'42.456"	5300	31005.0
78	Isapur Shumali/ Musslepur	28°56'27.6"	78°15'44.5572"	9260	54171.0
79	Halpura	28°55'44.04"	78°19'52.9176"	6190	36211.5
80	Pheena	29°4'12"	78°21'15.3072"	4810	28138.5
81	Pheena	29°4'1.92"	78°21'19.1772"	6830	39955.5
82	Pali ki Mandaiya	28°38'54.6432"	78°29'54.9996"	9200	53820.0
83	Pali ki Mandaiya	28°38'21.9732"	78°29'38.3604"	6770	39604.5
84	Daudpur Jageer	28°42'47.52"	78°20'1.4316"	2630	15385.5
85	Jiwai	28°48'42.84"	78°35'49.8732"	6480	37908.0
86	Itala mafi	28°47'56.50"	78°38'22.15"	26400	154440.0
87	Barahi/Mohammadpur	28°40'12.85"	78°38'39.35"	45200	264420.0
88	Koural	28°58'12.56"	78°20'19.28"	9060	53001.0
89	Koural	28°58'41.55"	78°20'37.60"	17890	104656.5
90	Koural	28°58'37.33"	78°21'08.52"	9630	56335.5
91	Rahamapur Khasla	28°48'21.84"	78°18'56.55"	12830	75055.5
92	Sadarpur	28°48'16.51"	78°19'48.62"	13310	77863.5
93	Soharka	28°44'33.9"	78°14'54.5"	4700	27495.0
94	Gangeshwari	28°33'14.2"	78°16'51.4"	5950	34807.5
95	Mohammadabad	28°46'31.98"	78°09'55.62"	11700	45630.0
96	Chuchela Kala	29°00'01.03"	78°16'09.54"	6280	29757.8
97	Chuchela Kala	29°00'21.89"	78°16'41.45"	5100	29835.0
98	Neeli Kheri	29°01'44.44"	78°13'50.48"	4660	19355.3
99	Neeli Kheri	29°01'35.99"	78°13'41.66"	4050	16979.6
100	Faiyaz Nagar	28°49'33.48"	78°23'29.96"	6070	35509.5
101	Faiyaz Nagar	28°49'36.52"	78°23'42.57"	5060	23976.8
102	Katai	28°48'45.93"	78°17'27.85"	12460	59041.7
103	Katai	28°48'26.68"	78°17'12.41"	10520	61542.0
104	Jihal	28°44'35.25"	78°24'14.65"	8220	48087.0
105	Nagalia	28°52'0.87"	78°10'47.47"	10040	58734.0
106	Chandarpur Khadar	28°33'47.30"	78°17'32.86"	28530	158555.5
107	Nawada	78°15'42.13"	28°49'20.38"	4010	19001.4
108	Dhanori Mafi II	78°32'81.26"	28°81'03.53"	1170	6844.5
109	Dhanori Mafi III	78°33'34.39"	28°81'84.77"	490	2866.5
110	Fhattepur sumali/ Chitra I	78°24'66.90"	28°90'88.02"	9390	54931.5
111	Manni Khera	28°38'6.72"	78°25'55.9668"	7350	42997.5
112	Rajpura	28°41'48.48"	78°21'25.6788"	2060	12051.0
113	Tuklabad	28°45'31.68"	78°24'50.2524"	1980	11583.0
114	Asmoli	28°42'2.16"	78°31'44.8716"	4860	28431.0
115	Hasanpur	28°48'4.9968"	78°35'29.8104"	9160	53586.0
116	Hatwa	28°49'11.28"	78°30'15.0624"	1460	8541.0
117	Hatwa	28°49'14.16"	78°30'12.096"	1340	7839.0
118	Fasgari (Hatwa)	28°49'14.16"	78°30'12.1104"	1250	7312.5
119	Bhikanpur Mundha	28°47'29.76"	78°31'9.84"	3360	19656.0
120	Bhikanpur Mundha	28°47'7.8"	78°30'58.5324"	7290	42646.5
121	Bhikanpur Mundha	28°47'13.2"	78°30'58.0716"	2020	11817.0
122	Bhikanpur Mundha	28°47'13.56"	78°30'57.2364"	1300	7605.0
123	Bhikanpur Mundha	28°46'58.08"	78°30'59.472"	1630	9535.5
124	Bhikanpur Mundha	28°47'4.56"	78°30'58.3128"	6720	39312.0
125	Tikiya	28°48'30.96"	78°30'5.6376"	4050	23692.5
126	Dulepur band urf Darapur	28°45'5.2056"	78°30'21.1752"	8250	48262.5
127	Emliya	29°3'55.08"	78°17'54.5928"	10120	59202.0
128	Emliya	29°4'13.44"	78°17'42.198"	12650	74002.5

S.No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum
129	Sarakthal	29°3'24.12"	78°20'1.0824"	5310	31063.5
130	Bhudan pur Bilayat Nagar	28°49'5.16"	78°34'10.6824"	4290	25096.5
131	Dhaki	28°59'30.48"	78°36'1.6488"	12990	75991.5
132	Jamuna Khas	29°2'11.4"	78°29'20.1408"	6680	39078.0
133	Adalpur Samdoo	29°2'48.48"	78°26'20.76"	7210	42178.5
134	Haripur Milak	28°43'58.5078"	78°27'56.5344"	6960	40716.0
135	Gyanpur Sisona	28°54'52.9194"	78°19'6.7902"	16680	97578.0
136	Gyanpur Sisona	28°55'37.1994"	78°19'26.8356"	4700	27495.0
137	Gyanpur Sisona	28°55'38.2794"	78°19'54.159"	6520	38142.0
138	Gyanpur Sisona	28°55'44.0394"	78°19'52.9176"	4130	24160.5
139	Gyanpur Sisona	28°55'16.6794"	78°37'4.4538"	4500	26325.0
140	Gyanpur Sisona	28°58'50.1594"	78°24'57.7296"	6230	36445.5
141	Kathna	28°40'57.9354"	78°26'19.734"	4520	26442.0
142	Chittawali	28°42'20.0772"	77°46'15.7686"	8740	51129.0
143	Chittawali	28°41'40.5378"	77°46'3.8676"	3720	21762.0
144	Hoshangpur	28°51'47.7"	78°17'52.8"	4820	28197.0
145	Nagalia	28°52'10.9"	78°18'01.7"	5180	30303.0
146	Karanpur Mafi	28°44'23.1"	78°18'41.1"	19790	115771.5
147	Shekhpur Jakri	28° 43' 56.712" N	78° 19' 3.936" E	33570	196384.5
148	Berkhera	29°00'02.3"	78°11'49.5"	5790	33871.5
149	Sujmana	28°56'53.0"	78°10'04.0"	10800	63180.0
150	Chuchela Kala	29°00'35.55"	78°16'36.58"	5300	31005.0
151	Galsua	28°41'13.32"	78°21'53.46"	22780	133263.0
152	Bartora	28°34'16.13"	78°14'31.88"	4170	11384.1
153	Agrola Kala	28°46'10.82"	78°14'07.96"	38500	225225.0
154	Rajheda Bahadurpur	28° 45' 28.332" N	78° 20' 23.964" E	12340	72189.0
155	Rajheda Bahadurpur	28° 45' 36.216" N	78° 20' 48.66" E	17000	99450.0
156	Patai Kalsa	28°48'5.04"	78°34'28.7256"	4500	26325.0
157	Kailsa	28°52'4.44"	78°33'32.7564"	7980	46683.0
158	Kadarpur Masti	28°40'29.7624"	78°44'45.564"	6360	37206.0
159	Kadarpur Masti	28°40'48.5364"	78°44'35.7"	27680	161928.0
160	Harthala	28°42'41.04"	78°35'26.1996"	11520	67392.0
161	Harthala	28°42'20.52"	78°36'4.0032"	13470	78799.5
162	Harthala	28°42'17.64"	78°36'9.6228"	11640	68094.0
163	Harthala	28°41'1.68"	78°36'39.9996"	14410	84298.5
164	Sisota Milak	28°42'20.52"	78°36'4.0032"	8740	51129.0
165	Tanda	28°48'8.73"	78°18'8.064"	8740	51129.0
166	Karanpurmafi	28°44'23.7192"	78°18'40.932"	19790	115771.5
167	Siali Jagir	28°48'1.7352"	78°16'32.736"	7330	42880.5
168	Chakori	28°44'7.2312"	78°20'31.65"	9790	57271.5
169	Seikhpur Jhakri	28°43'58.9656"	78°19'2.82"	6640	38844.0
170	Rajheda	28°45'35.0388"	78°20'47.9904"	17000	99450.0
171	Rajheda	28°45'42.5916"	78°21'29.844"	12750	74587.5
172	Brahmawaad	28°42'14.4432"	78°21'26.928"	14000	81900.0
173	Badhraula	28°35'34.0872"	78°28'0.084"	6150	35977.5
174	Badhraula	28°35'31.8228"	78°28'0.5772"	6720	39312.0
175	Rahra	28°32'04.09"	78°18'51.1"	4290	25096.5
176	Rahra	28°31'44.41"	78°19'01.08"	11970	70024.5
177	Lakhori Jalalpur	28°35'27.9888"	78°29'37.2588"	20920	122382.0
178	Lakhori Jalalpur	28°35'7.7532"	78°30'11.7"	12750	74587.5
179	Lakhori Jalalpur	28°34'58.3896"	78°29'31.7652"	13960	81666.0
180	Lakhori Jalalpur	28°35'39.1128"	78°29'39.8112"	10800	63180.0
181	Bhatola	28°33'36.3276"	78°29'4.0524"	8090	47326.5
182	Bhatola	28°32'54.8808"	78°28'10.3296"	6560	38376.0
183	Jujhelachak	28°59'14.3376"	78°12'2.844"	10720	62712.0
184	Chandnagar	28°52'24.4596"	78°22'20.0568"	7090	41476.5
185	Chandnagar	28°52'28.29"	78°22'35.22"	7050	41242.5
186	Chandnagar	28°52'34.2984"	78°22'58.6452"	7170	41944.5
187	Chandnagar	28°52'16.8312"	78°22'44.0076"	6760	39546.0
188	Melesiya	28°57'9.3132"	78°17'19.3884"	9000	52650.0
189	Sirsa Kumar	28°54'38.91"	78°31'50.26"	7570	44284.5
190	Jiwai	28°48'42.84"	78°35'49.8732"	6480	37908.0
191	Hakampur	28°38'7.4292"	78°16'11.676"	9380	54873.0
192	Amhera	29°15'49.179"	78°17'15.1182"	6410	37498.5
193	Amhera	29°15'20.6886"	78°16'58.8102"	6450	37732.5
194	Bhadora	29°40'20.6886"	78°16'56.82"	5470	31999.5
195	Bhadora	29°41'18.6886"	78°18'50.46"	4660	27261





## Water Conservation Initiatives at Gajraula, Uttar Pradesh

**SPECIFIC WATER  
CONSUMPTION AT  
JUBILANT'S GAJRAULA  
FACILITY HAS BEEN  
REDUCED BY **34%**  
IN THE LAST 5 YEARS**





## OVERVIEW

**Jubilant Ingrevia Limited**, established in 1980, is an integrated global pharmaceutical and life sciences company engaged in Pharmaceuticals, Life Science Ingredients and Drug Discovery & Development Solutions businesses. The Company has a team of around 8,000 multicultural people across the globe and is committed to deliver value to its customers across over 100 countries. The company's facility in Gajraula is one of its largest facilities spread over 460 acres. The facility manufactures key products used in a variety of industries. For more information please visit [www.jubl.com](http://www.jubl.com)

**About Jubilant Bhartia Foundation:** Established in 2007, Jubilant Bhartia Foundation (JBF) is the not-for-profit organisation of the Jubilant Bhartia Group. The Foundation focuses on conceptualising and implementing the Corporate Social Responsibility initiatives (CSR) for the Group.

For more information please visit [www.jubilantbhartiafoundation.com](http://www.jubilantbhartiafoundation.com)



## TRIPLE BOTTOM-LINE APPROACH

The concept of a sustainable business model is at the core of Jubilant's overall business strategy. It emphasizes upon creating balance amongst **economic, environment & social drivers**, the key pillars of triple bottom-line approach based sustainable business model. Where business focuses on economic development in tandem with environmental and social development.

Jubilant also reports its business performance every year from 2003 onwards in the form of Sustainability Report following GRI (Global Reporting Initiative) sustainability reporting guidelines.



From FY 2018 the Company has been reporting its sustainability performance following latest GRI Standards, which is the most widely used global standard on sustainability reporting and emphasizes upon stakeholder driven triple bottom-line approach. Jubilant is a signatory to Responsible Care®, an initiative of global chemical industry that drives continuous improvement in health, safety and environmental (HSE) performance. The Company has received Responsible Care® 14001:2015 certification under the American Chemistry Council's (ACC) Responsible Care® program for its key facilities.

Jubilant also reaches out to its stakeholders in building awareness and encouraging them to conserve water for common good. Its Green

Supply Chain Policy is one of such approach in achieving the gamut of integrated & holistic sustainable business model. The Company has set target on reducing its fresh water footprint at each site following 6th SDG (Sustainable Development Goal) on 'Clean Water and Sanitation' and is looking forward to imbibe comprehensive water stewardship model. It is also participating in CDP (Carbon Disclosure Project) – a global platform for disclosing climate change performance including carbon footprint of an organisation, from 2010. From last year Jubilant has started disclosing its water footprint voluntarily under CDP Water Security disclosure program. Jubilant's FY 2019 performance was benchmarked by CDP as per with Global Average performance score of 'B-'.







## **WATER AS A CRITICAL RESOURCE**

Jubilant understands how water defines growth for both human life and nature's ecosystems and is critical for sustainable development. Hence it continuously monitors, reviews and optimises its water consumption through process modifications and adoption of new technologies. Jubilant has also taken up several measures on water conservation like reducing its water wastage, decreasing the load on fresh water consumption and ensuring availability of potable drinking water within its facility as well as in the communities around its facilities. Water consumption at Jubilant is reviewed periodically by reputed external third parties so as to maintain high standards of transparency and accountability.

## **EXISTING WATER RELATED CHALLENGES IN GAJRAULA:**

- 1) Despite being 10 km from the Ganga river, ground water is the only source of water in Gajraula municipality and the surrounding villages. Hence rural areas are entirely dependent on ground water supply
- 2) Gajraula has no provision of irrigational channels or pipeline water
- 3) Piped drinking and domestic water is supplied by the municipality for about less than 20% of the residents. Rest of the residents use individual bore-wells.
- 4) Municipality does not own a sewage treatment plant and hence is forced to discharge raw sewage in surface water bodies or open to evaporation/seepage in ponds
- 5) Most rural areas have village ponds contaminated with domestic sewage effluents resulting in contamination of the ground water, thus affecting health of the community with water borne diseases



## 1. Efforts by Jubilant towards water conservation inside the facility

- Jubilant has a Fertilizer, Polymer, Distillery and Synthetic Organic Chemical Complex with a Coal Based Captive Power plant.
- Its facility at Gajraula is a zero liquid discharge facility – Jubilant does not discharge any of its treated or untreated effluents outside its premises hence reducing ground water extraction and also preventing any ground water contamination.
- For water management within its facility premises, Jubilant follows the 4R hierarchy:
  - ▶ **Reduce Consumption** – by process improvement and adopting water conservation measures
  - ▶ **Reuse Effluent** - as is, within the same process
  - ▶ **Recycle Effluent** - from one source as resource to another use
  - ▶ **Reprocess Effluent** - treat effluents to make it fit for same use or another use

- Sewage inside the Jubilant facility premises is treated and reused in gardening /landscaping.
- Jubilant collects and recharges all rainwater from non-process areas to unconfined aquifer.
- Programs to collect rainwater from the process areas for reuse in process is being undertaken for further reduction of ground water extraction.

### Rain water harvesting structures within Jubilant's facility





Jubilant's effluent treatment and recycling facilities at Gajraula, making it a Zero Liquid Discharge facility



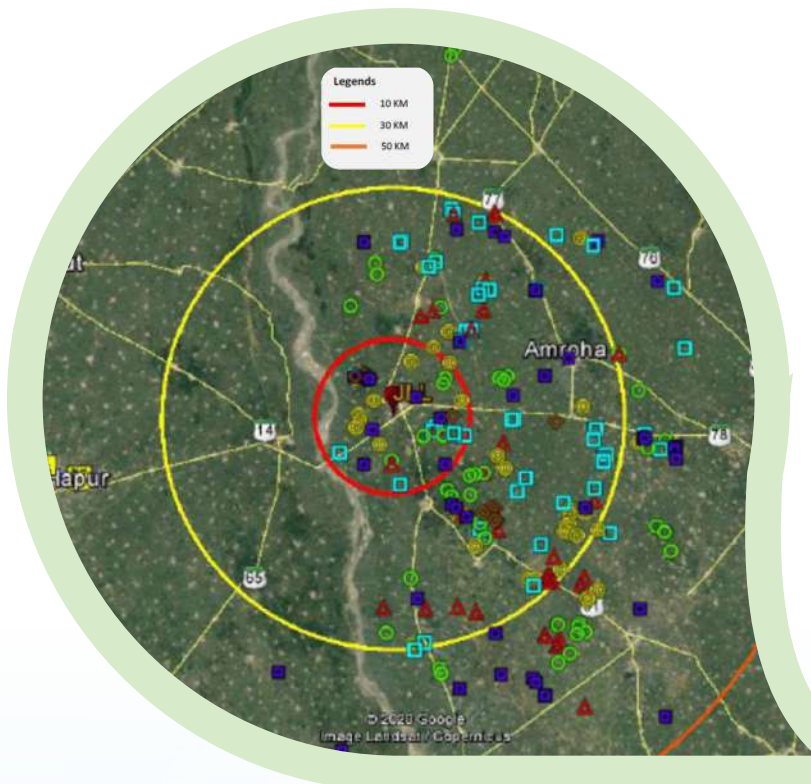
Rain water  
harvesting  
structures at  
village ponds



## 2. Comprehensive water management outside the facility

Through Jubilant Bhartia Foundation's (JBF) initiatives, the company's thrust is on enhancing water availability within its communities around the facility. Several initiatives to ensure availability of potable drinking water to the community include:

- i) **Construction of pond recharge structures in Gajraula:** JBF has facilitated in identification and construction of more than 250 ponds recharge structures within a radius of 50 km of the Jubilant's manufacturing facility in Gajraula with a capacity to recharge >91 lakh / annum to un-confined aquifer. Pond recharge structures are useful as extra water accumulated in the ponds during rains can be recharged to improve ground water level.



Google Earth image mapping of over 250 village ponds ground water recharge structures identified & constructed with Jubilant's support





## Nursery for 1 lakh trees per year



- ii) **Massive tree plantation initiative:** Starting 2020, JBF has taken up tree plantation drives with a target of about 1,00,000 trees per year, which will be planted for the next 10 years. The initiative is undertaken through farmers and the Gram Pradhans of the respective villages. The initiative will enhance water holding capacity of the soil and enhance groundwater recharge.



# Rainwater harvesting structure at schools

Junior School at Naipura



Junior School at Kankather



Junior School at Basaili



iii) **Construction of roof rain water harvesting structures:** Rooftop rain water harvesting is a technique through which rain water is captured from the roof catchments and stored in reservoirs or recharged to ground water aquifer. JBF has helped facilitate the construction of rain water harvesting structures in the following rural primary government schools of Gajraula - Govt UPS School, Naipura, Govt UPS School, Baseli and Govt UPS School, Kankather.

This initiative has been serving two-pronged purpose of conserving water as well as creating awareness on water conservation methods amongst school authorities, children and parents. The school children are made aware on water conservation's importance and techniques, which in turn goes a long way in further disseminating the information in their own communities.

School children made aware on water conservation's importance and techniques





## Ensuring availability of drinking water for the rural communities through installation of hand pumps



iv) **Ensuring availability of potable drinking water:** Contaminated water is linked to transmission of diseases such as Cholera, Diarrhoea, Dysentery, Hepatitis A, Typhoid and Polio. Absent, inadequate or inappropriately managed water services expose individuals to health risks. The raw sewage collection in village ponds which gets percolated to ground water aquifer is the prominent source of groundwater contamination. Jubilant has endeavoured to make availability of safe drinking water to its communities through the following measures:

Since 2014, Jubilant has installed about 575 hand pumps in 40 villages of Gajraula catering to a population of over 1 lakh



## Ensuring safe drinking water by installing reactors in hand pumps



▶ A total of 100 reactors (from Taraltech) have been installed in the hand pumps based at Gajraula to dis-infect water (by killing microbes in water), making the water safer than earlier for drinking

▶ Jubilant has facilitated **installation of three RO water plants** at Gajraula (two in Gajraula and one at Dhanura). These RO plants provide better quality water at an affordable cost to the community. These plants are located in the municipal area, covering the population of more than two lakhs. They have a capacity to provide 2000 L of water in one hour.





- v) Jubilant provides technical training on agricultural practices to the community members around its facility. The training helps the community members in improving soil health for higher productivity per drop of water
- vi) The company promotes crop change for low water intensive high value crops for farmers through education, to conserve ground water resources
- vii) Jubilant supports in desilting the Bagad river, jointly with the District administration



Desilting  
Bagad river



**viii) Ongoing joint efforts with State and Central government authorities:** Jubilant has been working hand-in-hand with the State and Central level government authorities in the achieving the following:

- ▶ Establishing a sewage treatment plant for Gajraula to make it fit for use in Industrial cooling application.
- ▶ Developing irrigational channels to support agriculture with surface water and reduce ground water extraction
- ▶ Developing supply system for sourcing surface water from Ganga and reduce groundwater extraction, for industrial and domestic use.
- ▶ Assisting in treating village sewage ponds for use in irrigation and thus reduce ground water contamination and reduce ground water extraction.



*With collective will, dedication and support from government and community, Jubilant continuously strives to conserve and optimally utilise the precious gift of nature to mankind – Water.*







For a sustainable world, environmental protection is the need of the hour. Knowing that, jubilant proactively work towards implementing initiatives to balance environmental and business needs of the company and community. The company has adopted and implemented international management systems and technologies to mitigate environmental challenges arising due to daily operations.

The Company is committed towards environmental sustainability, considering which various policies have been adopted:

- ▶ Environment, Occupational Health & Safety (EHS) Policy
- ▶ Energy Policy
- ▶ Climate Change Mitigation Policy
- ▶ Sustainability Policy
- ▶ Green Supply Chain Policy





## **Jubilant Ingrevia Limited**

### **Corporate Office**

1A, Sector 16A, Noida - 20 301, Uttar Pradesh, India

Tel.: +91 120 4361000, Fax: +91 120 4234884

Email: Vivek.Prakash@jubl.com, Narendra.Jain@jubl.com

[www.jubl.com](http://www.jubl.com)

