Joint Committee Report

In The Matter of Original Application No. 215 OF 2024 (WZ) (Uttam Manohar Mokal Vs State of Maharashtra & Ors.)

1.0 BACKGROUND

1.1 The Original Application No. 215 OF 2024 (WZ) filed by Uttam Manohar Mokal Vs State of Maharashtra & Ors. before the Hon'ble National Green Tribunal (NGT) which has highlighted concerns regarding the adverse environmental impact caused due to pollution caused to the land as well as other water bodies by respondent M/s Karamveer Shankarrao Kale Sahakari Sakhar Karkhana Ltd. (Distillery Division) on the impugned lands surrounding Gat No.210/3 of village Kolgaon Mal, District Nashik. Further, it is also alleged that the industry is discharging its effluent to the fields and into mined-out stoned quarries, wells and other water-bodies, situated and adjoining Gat Nos.190, 191, 194/1, 194/2, 195, 196, 200, 200/1, 201/2, 202, 203, 204/1, 204/2, 205/1, 207, 208 and 209/2 of village Kolgaon Mal, Taluka Sinnar, District Nashik, in violation of the Consent to Operate (CTO). The applicant has annexed the photograph of the tanker by which the effluent is being discharged on the land.

1.2 Considering the averments made in the application and the prima facie evidence produced on record, Hon'ble NGT find that substantial question relating to the environment is raised in this case. Therefore, admitted the application and directed vide order dated 14.11.2024 as follows

> *……7. We deem it appropriate to constitute a Joint Committee comprising one member each of Maharashtra Pollution Control Board (MPCB), Central Pollution Control Board (CPCB), District Collector, Nashik, MPCB being the nodal agency of the Committee, with a direction that the Committee shall visit the site in question after issuing notice to the applicant about the date and time of its visit and submits its report with respect to the allegations made in the application, within a period of one month from the date of uploading of this order. The said report shall be submitted before us by the MPCB by e-mail at ngt-pune@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.*

1.3 Copy of the aforesaid order of the Hon'ble NGT dated 14.11.2024 is given at **Annexure-I.**

1.4 In compliance with the aforesaid order following members have been nominated by the concerned departments

1.4.1 Mrs. Hemangi Patil, Sub Divisional Magistrate, Niphad, Dist-Nashik.

1.4.2 Shri Limbaji S. Bhad, Regional Officer, Maharashtra Pollution Control Board, Nashik

1.4.3 Shri Rajendra D Patil, Scientist 'E' - Regional Director, Central Pollution Control Board (CPCB), Pune

1.4.4 Shri Surendra Deshmukh, Tahasildar, Sinner, Dist-Nashik.

2.0 VISIT OF THE COMMITTEE

2.1 The committee conducted a site visit on 19.12.2024 at Kolgaon Mal, Taluka Sinner, District Nashik, as mentioned in the application. The applicant was present throughout the visit. The committee heard the applicant's grievances and interacted with industry representatives. The industry is located at Gautamnagar, Post Kolpewadi, Taluka Kopargaon, District Ahmednagar, approximately 4 km from the compost yard site in Kolgaon Mal, Taluka Sinner, District Nashik. The applicant informed the committee that the industry is discharging its effluent into fields, mined-out stone quarries, wells, and other water bodies in and around Gat Nos. 190, 191, 194/1, 194/2, 195, 196, 200, 200/1, 201/2, 202, 203, 204/1, 204/2, 205/1, 207, 208, and 209/2 of

village Kolgaon Mal, Taluka Sinnar, District Nashik. Furthermore, the applicant alleged that the industry is discharging its effluent via tankers from the distillery, causing land pollution. The applicant has provided a photograph (dated 08.02.2022) showing a tanker discharging effluent onto the land.

2.2 M/s. Karmaveer Shankarrao Kale Sahakari Sakhar Karkhana Limited (KSKSSKL) is located at Gautamnagar, Post Kolpewadi, Taluka Kopargaon, Ahmednagar District, Maharashtra. It is a cooperative sugar mill operational since 1965, with allied units including a distillery and a country liquor bottling facility situated within its premises.

2.2.1 The industry operates a 4,000 TCD sugar unit and has obtained a Consent to Operate (CTO) for the unit, dated 25th October 2024, valid until 31st July 2025.

2.2.2 The industry has a molasses-based 45 KLPD capacity distillery for the production of rectified spirit. It obtained environmental clearances on 12th January 2011 and 2nd September 2019. The latest CTO, dated 25th October 2024, is valid until 31st August 2025.

2.2.3 The industry also operates a potable country liquor and hand sanitizer manufacturing unit with capacities of 2,25,000 LPD and

2,000 LPD, respectively. It obtained a CTO dated 8th November 2022, valid until 31st August 2025.

Copies of the Consent to Operate issued to the Sugar, Distillery, and Country Liquor units are attached as **Annexture – II.**

2.3 On the day of the visit, the sugar unit and country liquor plant were operational, whereas the distillery unit was not in operation. The industry representatives informed that the distillery unit was shut down for maintenance work on the Multiple Effect Evaporator (MEE) and the incineration boiler.

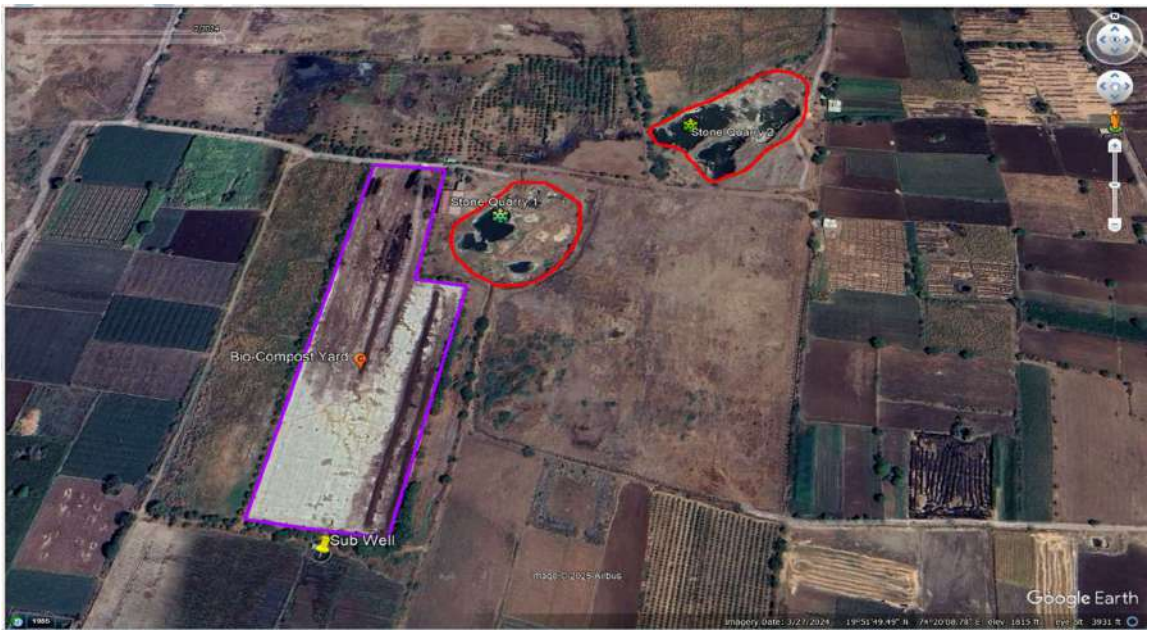
2.4 As per the Consent to Operate issued by the MPCB, the sugar unit is required to treat wastewater through an Effluent Treatment Plant (ETP) consisting of primary, secondary, and tertiary treatment processes with a capacity of 380 CMD. The treated effluent is to be disposed of on 75.68 hectares of industry-owned land for irrigation purposes. Details of the Effluent Treatment Plant, as provided by the industry is attached as **Annexure - III**

2.5 For the distillery unit, the MPCB has mandated Zero Liquid Discharge (ZLD). To comply, the industry has installed a Multiple Effect Evaporator (MEE) to concentrate spent wash, followed by an incineration boiler for complete treatment and disposal. Details of the Effluent Treatment Plant, as provided by the industry is attached as **Annexure - IV**

2.6 As per the information provided by the industry, Bio-Methanization followed by Bio-Composting was used to treat the distillery spent wash from 1999-2000, in accordance with the technology available during that period and the conditions specified in the Consent to Operate issued by MPCB at that time. However, after the installation of a Multiple Effect Evaporator (MEE) and an incineration boiler in 2018-19, the practice of bio-composting was discontinued. The 8-acre compost yard, which has a cement concrete reinforced floor and used earlier for bio-composting, is now used to process press mud into organic manure without using spent wash from the distillery. The process primarily involves drying the press mud; however, water is sometimes added to maintain the required moisture content.

2.7 A stone quarry is situated adjacent to the bio-compost yard. Water from this quarry is used to spray the press mud as required. However, no metering system is in place to maintain records of water consumption. At a distance of approximately 100-150 meters in the northeast direction from the first quarry, another stone quarry is located. The first quarry is within the factory premises, while the second quarry is on private land.

2.8 The image showing position of stone quarries and bio-compost yard is as given.



2.9 The applicant claims, the industrial effluent is discharged in these quarries. He also showed the opening of the underground pipeline in the quarry No.– 2 which is located on private land. The industry representatives denied the discharge of the any trade effluent in these quarries and defended the opening portion of the underground pipeline by stating that it might have been laid down by the farmers for utilising the water from the quarry for irrigation purposes.

2.10 The samples of the water stored in these stone quarries were collected during the visit of the committee. BOD in Quarry 1 is 4.20 mg/L and in Quarry 2 is 10.50 mg/L. Whereas COD in both the quarries is 20 mg/L. TDS (2260 & 1152 mg/L), Hardness (812 & 780 mg/L), and chlorides (689 & 204 mg/L). The characteristics the marginal contamination

which may possibly due to stagnancy of the water or geo-genic effect or percolation of the discharge on the surrounding fields.

2.11 Total 144-acre land is owned by the factory which is located near the old bio-compost yard which is mainly used for irrigation plantation purposes. The details as provided by the industry is as given

2.11.1 On 8-acre land bio-compost yard is constructed

2.11.2 57-acres land was earlier used as solar pits to treat the effluent generated from Distillery units & these solar pits were scraped in 2005 and now this land is used for plantation of Bamboo, Mohagani & lemon (25-acre) & agriculture (32-acre).

2.11.3 37-acre land is also used for agricultural purpose like sugarcane.

2.11.4 39.67-acre land is kept ready for plantation of Dahicha, Tag, etc. to increase productivity of soil.

2.11.5 Remaining 2.33-acre land is used for development of associated infrastructure like approach roads, drainage, etc.

2.11.6 Though the industry claimed that 108.67-acre land is used for the cultivation on which the effluent is discharge for the irrigation purpose. However, the time scale images of the Google earth confirmed that cultivation is practised on around

26 Acre land. It is claimed that the remaining land is under preparation for cultivation

2.12 The applicant informed that the industry is discharging its distillery effluent through tanker and the pipeline at their own land, which is causing pollution to the adjoining land belonging to the applicant, other farmers and surface water bodies. The applicant also showed photographs of the tanker discharging effluent on the land. The said photograph was taken during 2022.

2.13 In reply, the industry informed that the yeast sludge slurry was taken through the tanker for land application at Gut No. 209 (factory owned land), at Kolgaon Mal as manure. It was also mentioned that in February 2022 the fermenter was malfunctioning and taken for the maintenance by removing slurry in it. The unit had also submitted letter to MPCB to inform the incident on 08.02.2022. Otherwise in general situation industry dries the yeast sludge before utilising it as a manure.

2.14 The applicant submitted that the discharge of effluent is being done through a pipeline that has been laid underground from the distillery, resulting in soil and water pollution. The applicant also showed the one underground pipeline that is opening in the field of the industry. The unit informed that said pipeline is used for transportation of the treated effluent from the sugar unit for irrigation purpose

2.15 At the time of visit, the pipeline pipe-line was not operational. However, the pipe is found filled with the colourless effluent which have smell of sugar effluent. It was informed that the pipelines are generally left in filled condition to avoid the air trapping. The sample was collected and get analysed from the MPCB Laboratory. The said wastewater is having pH 4.6, COD 3616 mg/L, BOD 850 mg/L and Total Hardness 870 mg/L.

2.16 Thus, the effluent in the pipeline laid for irrigation purpose is not meeting the required standards. BOD is 8.5 times higher than the allowable limit of 100 mg/L for land application. Similarly, COD is very high and low pH water is not desirable for irrigation purpose.

2.17 The unit claims that the said effluent is mixed with the fresh water from river canal before land application. However, discharge standards are not permitted to achieve with dilution of the fresh water. Thus, the ETP of the sugar unit is not achieving the standards prescribed for the land application.

2.18 The effluent was also seen applied on some of the empty agriculture land. It was informed by the industry that this effluent is applied for preparation of the land for cultivation of the crops.

2.19 The industry has not prepared any irrigation management plan to adopt scientific approach for the land application and in absence of it the

excess water applied on the land can reach to the groundwater in case of shallow depth. The Google earth images also confirmed that the unit had excessively discharged effluent on around 1.321-acre land in February 2024. The Google earth image is as shown below.

2.20 In addition, the Google earth images also showing that the effluent is excessively applied at several locations wherein mainly plantation is done by the unit.

2.21 Thus, the sugar unit found violating the conditions of the consent and discharging highly concentrated wastewater on the land which can be the one of the potential source for the ground water pollution of the area.

2.22 The applicant shown one low lying area on the side of the approach road to the bio-compost yard and claimed that the industry frequently discharges effluent through tankers at the location. The wastewater

was found in stagnant condition at the location. The sample of the same was collected during the visit. The said wastewater having 180 mg/L BOD, 656 mg/L COD and 14974 mg/L dissolved solids. These characteristics confirms about the presence of the industrial effluent. The possible reasons can be either illegal discharge or overflowing/percolation from the surrounding irrigation land.

2.23 To investigate the groundwater pollution in the wells of the surrounding area, six wells have been visited with the applicant and samples are also collected for analysis. One well is owned by the industry and remaining 5 wells belongs to the farmers and situated on NE-N-NW border of the field of the industry.

2.24 Total 11 water samples (including 6 wells) collected during the visit. The image showing sampling locations is as given below.

Details of the locations marked on the map

1. Quarry near compost yard (Industry plot), Gut No. 201, Kolgaon mal, Tal Sinner, Dist Nashik.
2. Quarry at Gut No. 202 (Dhanwate Private plot), Kolgaon Mal, Tal Sinner, Dist Nashik.
3. Pipeline carrying sugar effluent at Gut No. 203, near old solar pit, Kolgaon mal, Tal Sinner, Dist Nashik.
4. Sub well at Gut No. 191, (Cemented leachate collection tank), Kolgaon mal, Tal Sinner, Dist Nashik.
5. Stagnant water at roadside drain at Gut No. 194, Kolgaon Mal, Tal Sinner, Dist Nashik.
6. Open well of Shri Kisan P. Navale, Gut No. 184, Laxmanpur, Tal Sinner, Dist Nashik.
7. Open well of Shri Laxman Kisan Karle, Gut No. 206, Kolgaon Mal, Tal Sinner, Dist Nashik.
8. Open well of Shri Somnath Lahanu Navale Ghayal, Gut No. 173, Laxmanpur, Tal Sinner, Dist Nashik.
9. Open well of Shri Raju Manohar Mokal, Gut No. 210/3, Kolgaon Mal, Tal Sinner, Dist Nashik.
10. Open well at industry plot Gut No. 202, Kolgaon Mal, Tal Sinner, Dist Nashik.
11. Open well of Dashrath Ramchandra Mokal, Gut No. 231, Kolgaon Mal, Tal Sinner, Dist Nashik.

Copy of the Photographs taken during visit is attached as **Annexure - V**

2.25 During the visit, the farmers informed that said water is not fit for consumption of human and animals due to its colour and foul smell. The freshwater from river canal is mixed with these water before applying to the agriculture fields.

2.26 Brownish colour & some foul smell was observed in the well water of Shri Somnath Lahanu Ghayal (Gut No. 173, Laxmanpur) and slight yellow colour was seen in the open well of Laxman Kisan Karle, (Gut No. 206, Kolgaon Mal). In the remaining wells, colour & smell was not observed.

2.27 The COD in well water is found in the range of 16-88 mg/L, BOD is in the range of 3.8 – 19.50 mg/L and TDS is in the range of 980 – 3734 mg/L. Thus, the analysis results indicate that the groundwater of this area is contaminated and not fit for drinking as per BIS standards. Details of the analysis results of all samples collected during visit is attached as **Annexure – VI.**

2.28 The possible reason for contamination in the well water is due to percolation of effluent in past which was stored in lagoons/solar pits, or percolation through water seeping from the dismantled lagoon area or excessive application of substandard effluent on the surrounding land.

2.29 The ground water contamination by the unit is not new, similar matter was already dealt by Hon'ble NGT vide Original Application 34 of 2014, Sukdeo Kolpe & Anr Vs. M/s. Kopargaon Sahakari Sakhar Karkhana Ltd. The case was disposed on dated April 4th 2016. Following is the content from the final judgement of Hon'ble NGT

- *The Respondent industry units shall restore damaged land to its original position at their own costs and shall restore the water quality of the well in the area surrounding the Sugar factory, as noted by the MPCB, in the joint Inspection report. This work shall be carried out under the supervision of the Regional Officer of MPCB the Deputy Collector and the District Agricultural Officer, Ahmednagar.*
- *The MPCB shall prepare necessary location plan for restitution and restoration of groundwater quality in the surrounding areas and executive the same as detailed in above paragraphs. The Collector, Ahmednagar, shall review the progress of this direction on a quarterly basis.*
- *The progress report of restoration and restoration work shall be submitted to the NGT, (WZ) Bench Pune at the end of each quarter by the MPCB, and the collector, Ahmednagar, for next two years.*
- *The MPCB shall issue necessary direction to the Respondent No.1 to improve their pollution control system in next six months. In case, the respondent No.1, fails to improve the pollution control system, the MPCB, shall take further action of revoking/refusal of consent and/or renewal of consent shall be done only with the permission of the Tribunal.*

2.30 In response to Hon'ble NGT Judgment dated 30/07/2014 and directions was issued by Regional officer, M. P. C. Board, Nashik on 22.10.2014, to restore the damaged land to its original position at their own costs and also to restore the water quality of the well in the area surrounding to sugar unit by preparing action plan through an expert agency like Rahuri Krishi vidhyapith/Ground Water Development Authority to assess the damage caused to the nearby agriculture land and water recourses.

2.31 In compliance, industry had hired the services of Mahatma Phule Krishi Vidyapeth (MPKV), Rahuri to undertake the study on the remediation of Ground Water & Soil quality. Total 134 water and soil samples were collected during the study. Based on results, the MPKV had identified 14 Well/Bore wells, for which remedial measures. As per Action taken report industry had carryout remedial work. Copy of the report of remedial measures taken by industry is enclosed as **Annexture – VII.**

2.32 The Committee also visited the industry on the day of visit –

2.32.1 The Sugar Unit – During visit sugar unit and its ETP was found in operation. Industry has provided Condensate polishing unit and also installed OCEMS at outlet of ETP. Industry has also provided mixing tank where treated effluent of sugar unit & fresh water from irrigation canal is mixed before applying it in

irrigation. Vegetation growth was observed on the side walls of the aeration tank which indicated poor O&M of the ETP. The new ETP was under commissioning.

2.32.2 Distillery Unit – During visit distillery was found non-operational, due to maintenance of MEE & incineration boiler. During visit, the side wall of the lagoon used for storage of the spent lees was broken that allowing stored effluent to come in contact with the soil and the fly ash stored near the lagoon was also found intermixing in the said lagoon. Air was trapped in the HDPE liner of the lagoon and the enlarged portion of the HDPE sheet was flowing. The causal approach of the unit in effluent handling can impact the surrounding environment.

2.32.3 During visit country liquor bottling unit found in operation. Industry has provided ETP for the treatment of washing effluent.

2.33 Earlier, the distillery unit was inspected by CPCB during July 2023. The unit was found non-complying and Directions under Section 5 of Environmental (Protection) Act, 1986 was issued to the unit on 17.11.2023. As per the ATR submitted by MPCB, the unit has complied with the directions.

3.0 Findings of The Committee

3.1 The distillery has achieved ZLD by installing MEE followed by incineration boiler. Whereas the treated effluent from the sugar unit is utilised for the irrigation purpose after mixing it with the canal water.

3.2 The old bio-compost yard is presently in use to process the press mud of the sugar unit, and the composting activities of distilleries were discontinued in 2018-19.

3.3 The unit has previously carried out carried out remedial activities for soil & ground water under the guidance of Mahatma Fule Krishi Vidyapeeth, Rahuri. However, the ground water quality is yet not restored to its original condition.

3.4 The groundwater of the area is not suitable for human, or animal consumption. It is used for irrigation only after mixing it with fresh water.

3.5 The sugar unit's Effluent Treatment Plant (ETP) does not meet the required standards for safe land application.

3.6 Evidence also indicates that effluent may have been discharged onto factory-owned fields or surrounding areas. The case of excessive application of effluent on land is also evident.

3.7 The unit has not prepared proper irrigation management plan for scientific approach in utilising the sugar effluent in irrigation.

4.0 Recommendations

4.1 Fresh comprehensive technical study should be conducted through an expert institution to assess the extent of groundwater contamination, identify potential sources, and recommend appropriate remedial actions.

4.2 The services of an expert agriculture institute should be engaged to evaluate the impact of contaminated ground water on crops of the farmers.

4.3 Considering the existing contamination and shallow groundwater levels, the unit shall be allowed to use treated effluent for irrigation in this area only after completion of the above suggested comprehensive technical study.

4.4 MPCB can be asked to take stringent action for the poor status of the effluent treatment system and non-compliance found during the visit. Appropriate compensation can be imposed for mishandling of sugar effluent and not achieving the desired degree of treatment for the sugar effluent.

4.5 Unit should be asked to establish a long-term groundwater monitoring program, with periodic sampling and analysis to assess the effectiveness of corrective measures and prevent further contamination.

4.6 The industry should be asked to prepare proper irrigation management plan for utilisation of the treated sugar effluent.

4.7 The industry should be required to install a metering system to monitor water usage from stone quarries and maintain its records.

Name of the Officer	Signature
Mrs. Hemangi Patil, Sub Divisional Magistrate, Niphad, Dist-Nashik.	
Shri Limbaji S. Bhad, Regional Officer, Maharashtra Pollution Control Board, Nashik	
Shri Rajendra D Patil, Scientist 'E' CPCB, Regional Directorate, Pune	
Shri Surendra Deshmukh, Tahsildar, Sinner, Dist. Nashik	

List of Annexures

Annexure -1

Item No.5 (Pune Bench)

BEFORE THE NATIONAL GREEN TRIBUNAL
WESTERN ZONE BENCH, PUNE

[Through Physical Hearing (with Hybrid Option)]

ORIGINAL APPLICATION NO.215 OF 2024 (WZ)
[Earlier Diary No.2704105006962024]

Uttam Manohar Mokal ... **Applicant**

Versus

State of Maharashtra & Ors. ... **Respondents**

Date of Hearing : 14.11.2024

CORAM : HON'BLE MR. JUSTICE DINESH KUMAR SINGH, JUDICIAL MEMBER
HON'BLE DR. VIJAY KULKARNI, EXPERT MEMBER

Applicant : Mr. Maitreya Ghorpade, Advocate

ORDER

1. This application has been filed with the prayers that a Joint Committee be constituted comprising respondent Nos.1 to 3 i.e. Secretary, Environment Department, State of Maharashtra, Maharashtra Pollution Control Board and the District Collector, Nashik, to assess extent of pollution caused by respondent No.4 – M/s Karamveer Shankarrao Kale Sahakari Sakhar Karkhana Ltd. (Distillery Division) on the impugned lands surrounding Gat No.210/3 of village Kolgaon Mal, District Naashik. Further it is prayed that a direction be issued to respondent Nos.1 and 2 to impose penalty upon respondent No.4 for pollution caused to the land as well as other water bodies and respondent No.4 be directed to restitute the land in question to its original condition.

2. It is submitted in the application that respondent NO.4 is discharging its effluent to the fields and into mined-out stoned quarries, wells and other water-bodies, situated and adjoining Gat Nos.190, 191, 194/1, 194/2, 195, 196, 200, 200/1, 201/2, 202, 203, 204/1, 204/2, 205/1, 207, 208 and

209/2 of village Kolgaon Mal, Taluka Sinnar, District Nashik, in violation of the Consent to Operate (CTO), which is annexed at pages 25 to 33 of the paper-book.

3. Learned counsel for the applicant submits that very first condition of the CTO states that no spent wash shall be discharged outside the factory premises/onland/into stream directly or indirectly. The impugned polluted land, though is owned by respondent NO.4 – Project Proponent, is situated adjacent to Gat No.201/3, which is belonging to the applicant, whereon the applicant has carried out agricultural activities for past several years. Respondent No.4 has been discharging its effluent through tankers, which is coming out of its distillery and the same is resulting in polluting the land of the applicant. It is also submitted that the discharge of effluent is being done through a pipeline that has been laid underground from the distillery, resulting in soil and water pollution. Hence, the above prayers have been made.

4. The applicant has annexed the photograph of the tanker by which the effluent is being discharged on the land, which is at page 35 of the paper-book. He has also submitted that he had filed P.I.L. before the Hon'ble High Court of Bombay being PIL No.135 of 2022, wherein the Hon'ble High Court passed an order on 19.10.2022 (annexed at pages 76 and 77 of the paper-book), disposing of the same with a direction that the petitioner (applicant) may approach the Pollution Control Board for consideration of his complaint, pursuant to which the MPCB had held a meeting on 09.05.2023, minutes of which is annexed at page 79 of the paper-book, wherein it is recorded that the industry, before 2018, used the spent wash for bio-composting at the gat number in question through the pipeline in their own factory premises. In 2018, the industry has installed evaporator boiler for spent wash and the pipeline used for carrying spent wash was discontinued

and they were also going to discontinue the bio-composting activity at the said plot and also level the solor pit before 31.05.2023.

5. Learned counsel for the applicant submits that the observations made in the minutes of the meeting of MPCB does not depict the correct position because even today, respondent No.4 is discharging its effluent through tanker and the pipeline at their own land, which is causing pollution to the adjoining land belonging to the applicant and other water-bodies.

6. Considering the averments made in the application and the prima facie evidence produced on record, we find that substantial question relating to the environment is raised in this case. Therefore, we admit this application and direct the Registry to issue notice to the respondents, returnable within four weeks from the date of uploading of this order.

7. We deem it appropriate to constitute a Joint Committee comprising one member each of Maharashtra Pollution Control Board (MPCB), Central Pollution Control Board (CPCB), District Collector, Nashik, MPCB being the nodal agency of the Committee, with a direction that the Committee shall visit the site in question after issuing notice to the applicant about the date and time of its visit and submits its report with respect to the allegations made in the application, within a period of one month from the date of uploading of this order. The said report shall be submitted before us by the MPCB by e-mail at ngt-pune@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

8. A copy of this order shall be served upon all the members of the Joint Committee by the MPCB for compliance as above.

9. The applicant is directed to provide copies of the memo of Original Application along with annexures thereto to the respondents, within a week from the date of uploading of this order.

10. The applicant is also directed to take necessary steps for service upon the respondents by both ways and also through available e-mail.

11. Put up this matter for next consideration on 20.01.2025.

Dinesh Kumar Singh, JM

Dr. Vijay Kulkarni, EM

November 14, 2024
ORIGINAL APPLICATION NO.215/2024
npj

Annexure - 2

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
Fax: 24023516
Website: http://mpcb.gov.in
Email: cac-cell@mpcb.gov.in

Kalpataru Point, 2nd, 3rd and 4th floor, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai-400022

No:- Format1.0/CAC/UAN No.MPCB-CONSENT-0000211444/CR/2410002474

Date: 25/10/2024

To,
M/s. Karmaveer Shankarrao Kale Sahakari Sakhar Karkhana Limited.,
Survey No. 109/1 & 109/2, At-Gautamnagar, Post-Kolpewadi
Tal. Kopargaon, Dist. Ahmednagar. Maharashtra

Your Service is Our Duty

Sub: Renewal of consent for 4000 TCD Sugarcane crushing capacity

Ref:

1. **Earlier consent granted vide no. - Format1.0/CAC/UAN No.MPCBCONSENT- 0000171758/CR/2309000950 dated 12.09.2023**
2. **Minutes of 8th CAC meeting held on 04.10.2024**

Your application No.MPCB-CONSENT-0000211444 Dated 03.06.2024

For: Grant of Renewal of Consent under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 and Rule 18(7) of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. **The Consent to Renewal is granted upto: 31.07.2025**
2. **The capital investment of the industry is Rs.249.64 Crs. (As per C.A Certificate submitted by industry).**
3. **Consent is valid for the manufacture of:**

Sr No	Product	Maximum Quantity	UOM
1	Sugar	14400	MT/M
2	Bagasse	33000	MT/M
3	Pressmud	6000	MT/M
4	Molasses	6000	MT/M
5	Electricity Power Generation Unit (Co-Generation)	8	MW

3. **Note: Total Sugar Cane Crushing capacity shall not exceed 4000 TPD.**

4. **Conditions under Water (P&CP) Act, 1974 for discharge of effluent:**

Sr No	Description	Permitted in CMD	Standards to	Disposal
1.	Trade effluent	350	As per Schedule -I	After treatment Recycle/Reuse / on land for gardening.
2.	Domestic effluent	25	As per Schedule - I	After treatment Recycle/Reuse / on land for gardening.

5. **Conditions under the Air (P& CP) Act, 1981 for air emissions:**

Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
1	Boiler (100 TPH)	1	As per Schedule -II
2	D.G. Set (625 KVA)	1	As per Schedule -II
3	D.G. Set (250 KVA)	1	As per Schedule -II

(As per previous consent of existing unit)

6. **Conditions about Non Hazardous Wastes:**

Sr No	Type of Waste	Quantity	UoM	Treatment	Disposal
1	Boiler Ash	50	MT/Day	Sale to Authorized Brick Manufacturer	Sale to Authorized Brick Manufacturer

7. **Conditions under Hazardous & Other Wastes (M & T M) Rules 2008 for treatment and disposal of hazardous waste:**

Sr No	Type of Waste	HW Category.	Quantity & UoM	Treatment	Disposal
1	5.1 Used or spent oil	5.1	25 Kg/M	Sale to MPCB authorized re-processor / recycler / CHWTSDF	Sale to MPCB authorized re-processor / recycler / CHWTSDF

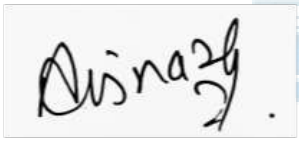
The applicant shall ensure disposal to the Actual user having permissions under Rule 9 of Hazardous and other Waste (M & TM) Rules, 2016.

a. The applicant shall properly collect, transport & regularly dispose of the hazardous waste to CHWTSDF, in compliance of the Hazardous & Other Wastes (Management & Transboundry Movement) Rules, 2016 and keep proper manifest thereof.

8. The Board reserves the right to review, amend, suspend, revoke etc. this consent and the same shall be binding on the industry.
9. This consent should not be construed as exemption from obtaining necessary NOC/permission from any other Government authorities.
10. Industry shall comply with the EIA notification, dtd. 14.09.2006 and Amendments thereto and consent shall treat as cancelled if industry violates the same.
11. Industry shall connect online CMS data as per CPCB guidelines to CPCB & MPCB Servers.
12. Industry shall stop production activity voluntarily in case of failure of operation and maintenance of the ETP system as preventive measures.
13. Industry shall extend all existing BGs towards O&M of pollution control systems and towards compliance of the Consent conditions.

14. This consent is issued as per the 8th Consent Appraisal Committee meeting dated 04.10.2024
15. The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent.
16. This consent shall be consider cancelled if industry violates the various environmental laws, rules and regulations.
17. The BG of Rs 5 lakh shall be forfeited against exceeding JVS results of ETP outlet and stack. Also industry shall submit double the amount of BG forfeited i.e Rs 10 lakh.
18. Industry shall submit/extend Bank Guarantee of Rs. 30 lakh towards O & M of pollution control system and compliance of consent conditions
19. The treated sewage shall be recycled for secondary purposes to the maximum extent and remaining shall be discharged on land for gardening within premise. In no case, sewage shall find its way for gardening / outside factory premises.
20. The industry shall create an Environment Cell by appointing an Environmental Engineer / Expert for looking after day-to-day activities related to Environment / Pollution control.

This consent is issued on the basis of information/documents submitted by the Applicant/Project Proponent, if it has been observed that the information submitted by the Applicant/Project Proponent is false, misleading or fraudulent, the Board reserves its right to revoke the consent & further legal action will be initiated against the Applicant/Project Proponent.



Signed by: Dr.Avinash Dhakne
Member Secretary
For and on behalf of,
Maharashtra Pollution Control Board
ms@mpcb.gov.in
2024-10-25 12:48:35 IST

Received Consent fee of -

Sr.No	Amount(Rs.)	Transaction/DR.No.	Date	Transaction Type
1	499288.00	TXN2406000219	03/06/2024	Online Payment
2	75000.00	MPCB-DR-27250	13/06/2024	NEFT

Copy to:

1. Regional Officer, MPCB, Nashik and Sub-Regional Officer, MPCB, Ahmednagar

- They are directed to ensure the compliance of the consent conditions.
- Regional Officer, Nashik & Sub-Regional Officer, Ahmednagar are directed to forfeit the Bank Guarantee(BG) of Rs.5 Lacs & obtain top up BG of Rs. 10 Lacs from the Industry, do needful & submit the compliance accordingly.

2. Chief Accounts Officer, MPCB,Sion, Mumbai
3. CC-CAC desk - for record & website updation.

SCHEDULE-I

Terms & conditions for compliance of Water Pollution Control:

1) **A] As per your application, you have Provided Effluent Treatment Plant (ETP) of designed capacity of 624.00 CMD consisting of Primary, Secondary Tertiary for the treatment of 350.00 CMD industrial effluent.**

B] Industry shall provide CPU for recycle/reuse of treated effluent.

C] The Applicant shall operate the effluent treatment plant (ETP) to treat the trade effluent so as to achieve the following standards prescribed by the Board or under EP Act, 1986 and Rules made there under from time to time, whichever is stringent.

Sr. No.	*Parameters*	*Limiting concentration not to exceed in mg/l, except for pH*
(1)	pH	5.5-9.0
(2)	Oil & Grease	10
(3)	BOD (3 days 27^{o}C)	100
(4)	Sulphate	1000
(5)	Suspended Solids	100
(6)	COD	250
(7)	Chloride	600
(8)	Total Dissolved Solids	2100

D] The treated effluent 350.00 CMD shall be disposed on land for irrigation on 75.68 hectares of own land /as per the bilateral agreement with farmers. In no any case treated/untreated effluent shall find its way outside the factory premises directly or indirectly.

E] Industry shall operate Online Continuous Emission Monitoring System (OCEMS) and shall transmit Online Continuous Emission Monitoring System (OCEMS) data to Board's server directly through the data logger without any intermediate server.

F] Trade effluent of 0.00 CMD generated from Co-gen shall be 100% recycle in process.

G] CREP conditions for Sugar Factory

i. Operation of ETP shall be started at least one month before starting of cane crushing to achieve desired MLSS. So as to meet prescribed standards from day one the operation of mill.

ii. Waste water generation shall be reduced to 100 liters per tone of cane crushed.

iii. Industry shall achieve zero discharge into in land surface water bodies.

iv. 15 days' storage capacity tank shall be provided for treated effluent to take care during no demand for irrigation.

H] Industry to make necessary arrangement to cover the effluent collection system and to avoid the ingress of Bagasse and other material.

I] The unit shall operate ETP even after completion of the crushing season so that any effluent generated during washing & maintenance activity is to be discharged after proper treatment.

J] The unit shall optimize water use in industrial process & maintain records.

2) A] **As per your application, you have provided STP design capacity of 500 CMD for the treatment of 25.00 CMD sewage.**

B] **The applicant shall operate sewage treatment system to treat sewage so as to achieve the following standards/ prescribed under EP Act 1986 and rules made under time to time, whichever is stringent.**

1	Suspended Solids	Not to exceed	100 mg/l
2	BOD 3 days (27°C)	Not to exceed	100 mg/l

C] **The treated sewage shall be 100% reused/recycled for gardening purpose within premise. In no any case, sewage shall find its way outside Company's premises.**

3) The industry shall have bilateral agreement with the farmers on whose land the treated effluent is used for irrigation purposes and a copy of the agreements with validity shall be submitted to the Regional/Sub- Regional Office of the Board.

4) The industry shall create Environmental Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and irrigation field where treated effluent is used for irrigation.

5) CONDITIONS FOR MOLASSES STORAGE:

(i) The molasses shall be properly collected and stored in steel tanks which shall be leak proof. At no stage of handling of molasses, there shall be leakage or spillage.

(ii) The capacity of tanks for storage of molasses shall be such that it will take care of bumper production of sugar, non-lifting of molasses etc.

(iii) All the area on which molasses are stored and handled should be provided with drain for diverting the spills to the treatment plant/ molasses tank. Suitable arrangements for accidental discharges of molasses from the tanks shall be provided to contain the same within factory premises.

(iv) Destruction of molasses and its disposal shall not be done without specific permission in writing from the authorized officer of the Board. Intimation of intention to destroy or dispose of the molasses shall be given to the Board at least 15 (fifteen) days in advance by registered post under intimation to the Sub-Regional officer and Regional officer of the Board under whose jurisdiction the factory is situated.

(v) The storage tanks shall be kept in good conditions all the year round with adequate maintenance. The tanks size and capacity per cm, height, total capacity in tonnes shall be displayed prominently near /on the tank.

(vi) The above conditions shall be in addition to and not in derogation of the provisions contained in the "Bombay Molasses Rules, 1955? and "Maharashtra Molasses Storage and Supply Regulation, 1965?.

6) The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines if applicable.

7) The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification there of & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.

8) The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.

9) The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters, and other provisions as contained in the said act:

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, spraying in mine pits or boiler feed	0.00
2.	Domestic purpose	25.00
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	375.00
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00
5.	Grandening	0

10) The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance/ CREP guidelines.

SCHEDULE-II

Terms & conditions for compliance of Air Pollution Control:

1) As per your application, you have provided the Air pollution control (APC) system and erected following stack(s) and observe the following fuel pattern-

Stack No.	Stack Attached To	APC System	Height in Mtrs.	Type of Fuel	Quantity & UoM	S%	SO_2
1	Boiler (100 TPH)	Electrostatic Precipitator (ESP)	72	Bagasse	1080 MT/Day	0.20	4320.00
2	DG set 625 KVA	Acoustic enclosure	5	HSD	135.1 Ltr/Hr	0.20	10.80
3	DG set 250 KVA	Acoustic enclosure	72	HSD	54.5 Ltr/Hr	0.20	4.36

(As per previous consent of existing unit)

2) The Applicant shall provide Specific Air Pollution control equipments as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines.

1 The Applicant shall provide ESP/ Bag filter/ Wet scrubber to the Bagasse fired boiler and Dust Collector to Sugar bagging section as an Air Pollution control equipments OR as per the conditions of EP Act, 1986 and rule made there under from time to time / Environmental Clearance / CREP guidelines.

2 The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards:

Total Particulate matter	Not to exceed	150 mg/Nm3
SO2	Not to exceed	4335.16 Kg/day

3 The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.

4 The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).

5 Industry should not use auxiliary fuel more than 15 % (as per amendment in EIA Notification 2009, power plant upto 15 MW based on Bio-mass and using auxiliary fuel as coal upto 15% are exempt.) as co-gen capacity is below 15 MW.

3) The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.

4) The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).

SCHEDULE-III

Details of Bank Guarantees:

Sr. No.	Consent(C2E/ C2O/C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	Consent to Operate	Rs. 30 Lacs	15 days	Towards Compliance of consent conditions and Operation & maintenance of pollution control system & to achieve consented prescribed standards	31.07.2025	31.01.2026

BG Forfeiture History

Srno.	Consent (C2E/C2O/C2R)	Amount of BG imposed	Submission Period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
1	Consent to Operate	Rs. 25 Lacs	15 days	Compliance of consent conditions and Operation & maintenance of pollution control system & to achieve consented prescribed standards	Rs. 5 Lacs	Towards JVS Exceedance

SCHEDULE-IV

General Conditions:

1 The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.

2 The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.

3 Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipment, the production process connected to it shall be stopped.

4 The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.

5 The firm shall submit to this office, the 30th day of September every year, the Environmental Statement Report for the financial year ending 31st March in the prescribed Form-V as per the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.

6 The industry should comply with the Hazardous & Other Wastes (M & TM) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous & Other Wastes (M & TM) Rules, 2016 for the preceding year April to March in Form-IV by 30th June of every year.

7 An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.

8 The industry shall constitute an Environmental cell with qualified staff/personnel/agency to see the day to day compliance of consent condition towards Environment Protection.

9 The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.

10 The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.

11 The industry shall submit official e-mail address and any change will be duly informed to the MPCB.

12 Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly.

13 The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the H&OW(M&TM) Rules 2016, which can be recycled/processed/ reused/ recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/ reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment.

14 Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act,1981 and Environmental Protection Act,1986 and industry specific standard under EP Rules 1986 which are available on MPCB website(www.mpcb.gov.in).

15 Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.

16 Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.

17. Conditions for D.G. Set

a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.

b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.

c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper sitting and control measures.

d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.

e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.

f) D.G. Set shall be operated only in case of power failure.

g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.

h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.

18 The industry should not cause any nuisance in surrounding area.

19 The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.

20 The applicant shall maintain good housekeeping.

21 The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.

22 The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipment provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.

23 The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.

24 The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification dtd. 16.11.2009 as amended.

25 Whenever due to any accident or gas leakage or other unforeseen act or even, such emission occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Collector, Directorate of industry, Safety and Health, Police Station, fire Brigade, Directorate of Health services, Department of Explosives, Board and local Body the production process should be stopped by taking all necessary safety measures. Industry shall also monitor the emission and ensure that the emission do not cause any harm or nuisance in the surrounding. The industry should not restart the process without the permission of the Board and other statutory organization as require under the law.

26 Industry shall comply with the provisions of MSIHC Rules,1989 as amended thereafter, if applicable.

27 The Industry shall comply with E-waste (Management) Rules, 2016.

28 The Industry shall comply with Batteries (Management and Handling) Rules, 2001.

29 Industry shall comply the provisions of Maharashtra Plastic and Thermocol Items notification, 2018 and amendments thereto.

30 Industry shall comply the provisions of Plastic Waste Management Rules, 2016 and amendments thereto.

This certificate is digitally & electronically signed.

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
Fax: 24023516
Website: http://mpcb.gov.in
Email: cac-cell@mpcb.gov.in

Kalpataru Point, 2nd, 3rd and 4th floor, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai-400022

RED/L.S.I (R60)
No:- Format1.0/CAC/UAN No.MPCB-CONSENT-0000213120/CR/2410002473

Date: 25/10/2024

To,
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LTD., (DISTILLERY DIVISION),
Suregaon 23, Gat No. 109/1, AT-Gautamnagar, Post - Kolpewadi,
Tal. - Kopargaon, Dist.- Ahmednagar.

Your Service is Our Duty

Sub: Renewal of consent for 45 KLPD molasses based distillery

Ref:
1. Earlier consent granted vide no. Format1.0/CAC/UAN No 0000114347/CR-2110000536 dated 11.10.2021
2. Minutes of 8th CAC meeting held on 04.10.2024

Your application No.MPCB-CONSENT-0000213120 Dated 17.06.2024

For: Renewal of consent to operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. **The consent to renewal is granted for a period up to 31/08/2025**
2. **The capital investment of the project is Rs.20.0832 Crs. (As per C.A Certificate submitted by industry Capital investment of existing Sugar & Co-gen unit is 249.64 Cr + CI of existing distillery unit is 20.0832 Cr.)**
3. **Consent is valid for the manufacture of:**

Sr No	Product	Maximum Quantity	UOM
Products			
1	Rectified Spirit	1350	KL/M
2	Fusel Oil	4	KL/M
3	Power	1.5	MW

4. **Conditions under Water (P&CP), 1974 Act for discharge of effluent:**

Sr No	Description	Permitted (in CMD)	Standards to	Disposal Path
1.	Trade effluent	415	As per Schedule-I	After volume reduction 125 CMD - MEE followed by Incineration Boiler to achieve ZLD.
2.	Domestic effluent	20	As per Schedule-I	On land for gardening

5. **Conditions under Air (P& CP) Act, 1981 for air emissions:**

Sr No.	Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
1	1	Incineration Boiler	1	As per Schedule -II

6. **Non-Hazardous Wastes:**

Sr No	Type of Waste	Quantity	UoM	Treatment	Disposal
1	Yeast Sludge	5	MT/M	NA	Manure
2	Potash rich Ash	720	MT/M	NA	Manure

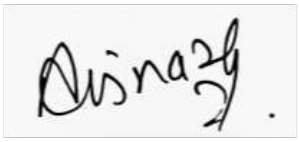
7. **Conditions under Hazardous & Other Wastes (M & T M) Rules 2016 for Collection, Segregation, Storage, Transportation, Treatment and Disposal of hazardous waste:**

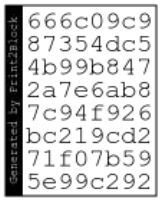
Sr No	Category No./ Type	Quantity	UoM	Treatment	Disposal
NA					

8. Industry shall install online continuous monitoring system as per CPCB guidelines & data to be transmitted directly from Data Logger to Board server .
9. The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding on the industry.
10. This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
11. This consent is issued pursuant to the decision of the 8th Consent Committee Meeting held on 04.10.2024
12. The applicant shall make an application for renewal of consent 60 days prior to date of expiry of the consent.
13. Industry shall extend/submit Bank Guarantee of Rs. 25 lakh towards O & M of pollution control systems and compliance of consent conditions.

14. The industry shall create an Environment Cell by appointing an Environmental Engineer / Expert for looking after day-to-day activities related to Environment / Pollution control.

This consent is issued on the basis of information/documents submitted by the Applicant/Project Proponent, if it has been observed that the information submitted by the Applicant/Project Proponent is false, misleading or fraudulent, the Board reserves its right to revoke the consent & further legal action will be initiated against the Applicant/Project Proponent.





Signed by: Dr.Avinash Dhakne
Member Secretary
For and on behalf of,
Maharashtra Pollution Control Board
ms@mpcb.gov.in
2024-10-25 12:46:34 IST

Received Consent fee of -

Sr.No	Amount(Rs.)	Transaction/DR.No.	Date	Transaction Type
1	150000.00	MPCB-DR-27481	25/06/2024	NEFT

Balance amount of Rs. 98500 will be considered at the time of next renewal of consent.

Copy to:

1. Regional Officer, MPCB, Nashik and Sub-Regional Officer, MPCB, Ahmednagar
- They are directed to ensure the compliance of the consent conditions.
2. Chief Accounts Officer, MPCB,Sion, Mumbai
3. CC/CAC desk - for record and website updation purpose.

SCHEDULE-I

Terms & conditions for compliance of Water Pollution Control:

1.Conditions for Trade effluent:

A] You have provided comprehensive treatment i.e Effluent treatment plant with the design capacity of 450 CMD for trade effluent 415 CMD including MEE for volume reduction and Incineration Boiler for acheiving zero discharge. In no any spent wash shall discharge outside the factory premises/ onland / into stream directly or indirectly.

B] Industry shall provide CPU for recycle/reuse of treated effluent.

C] Zero Liquid discharge shall be ensured, and no wastewater/treated water shall be discharged outside the premises.

D] Industry shall operate Online Continuous Emission Monitoring System (OCEMS) and shall transmit Online Continuous Emission Monitoring System (OCEMS) data to Board's server directly through the data logger without any intermediate server

2.Conditions for Sewage/ Domestic effluent:

i. You shall provide sewage treatment plant for the treatment of 20 CMD sewage generation due to expansion and provide including disinfection facility.

ii. The industry shall operate sewage treatment system to treat the sewage/ domestic effluent so as to achieve the standards as prescribed by the board/under EP Act, 1986 and rules made thereunder from time to time whichever is stringent.

Sr.No	Parameter	Concentration not to exceed(in mg/l except for pH
1.	pH	6.5-9.0
2.	BOD	30
3.	TSS	100

iii. The sewage shall be treated by using septic tank and soak pit and overflow if any shall be used on-land for gardening/irrigation.

5. The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act:

Sr. No.	***Purpose for water consumed***	***Water consumption quantity (CMD)***
1.	Industrial Cooling, spraying in mine pits or boiler feed	100.00
2.	Domestic purpose	30.00
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	400.00
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00
5.	Gardening	0

6. The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance.

SCHEDULE-II

Terms & conditions for compliance of Air Pollution Control:

1. As per your application, you have provided the Air pollution control (APC) system and erected following stack (s) to observe the following fuel pattern:

Stack No.	Stack Attached To	APC System	Height in Mtrs.	Type of Fuel	Quantity & UoM	S%	SO_2
1	Incineration Boiler	ESP	72	Concentration spentwash + Coal	40 MT/Day	0.50	400.00

2. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
3. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
4. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
5. The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards:

Particulate matter	Not to exceed	150 mg/Nm3

6. Storage of raw materials, coal etc. shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
7. The industry shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office MPCB.
8. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
9. Industry shall provide Online Continuous Emission Monitoring System (OCEMS) i.e. flow meter and night vision camera to ensure the Zero Liquid Discharge (ZLD) of spent wash and OCEMS for Boiler stack for PM parameter.

SCHEDULE-III

Details of Bank Guarantees:

Sr. No.	Consent (C2E/ C2O /C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	C to R	2500000	15 days/ To be extended	Towards O & M of pollution control systems and compliance of consent conditions	31.08.2025	28.02.2026

If the above Bank Guarantee is not submitted within stipulated period, then 12% interest will be levied as a penalty as per circular dtd 29/02/2024 No. BO/MPCB/AS(T)/Circular/B-240229FTS0122

BG Forfeiture History

Srno.	Consent (C2E/C2O/C2R)	Amount of BG imposed	Submission Period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
NA						

BG Return details

Srno.	Consent (C2E/C2O/C2R)	BG imposed	Purpose of BG	Amount of BG Returned
NA				

SCHEDULE-IV

General Conditions:

1. The Energy source for lighting purpose shall preferably be LED based
2. The PP shall harvest rainwater from roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial applications within the plant
3. Conditions for D.G. Set
   a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
   b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
   c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper sitting and control measures.
   d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
   e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
   f) D.G. Set shall be operated only in case of power failure.
   g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
   h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.
4. The applicant shall maintain good housekeeping.
5. The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
6. The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
7. The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding upon you.
8. The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can downloaded from MPCB official site).
9. The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
10. The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated. 18.11.2009 as amended.
11. This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
12. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.

13. You shall operate OCEMS installed for source emission round 'O' clock and transmit data online to CPCB and MPCB server. You shall also monitor effluent quality, stack emissions and ambient air quality monthly/quarterly. You shall conduct Dioxin Furan monitoring by third party NABL Accredited agency once in year and submit report to Sub Regional Officer.
14. You shall ensure collection, and segregation of BMW regularly to treat and dispose Off within 48 hrs from generation.
15. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
16. The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
17. The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M & TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment.
18. An inspection book shall be opened and made available to the Board’s officers during their visit to the applicant.
19. You shall not Rent, Lend, Sell, Transfer or Close Down the facility or otherwise transport the Bio Medical waste for any other purpose without obtaining prior written permission of the MPC Board.
20. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
21. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
22. The industry should not cause any nuisance in surrounding area.
23. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
24. You shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the facility premises.
25. The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board’s Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
26. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto
27. The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.

28. The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
29. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions.
30. The firm shall submit to this office, the 30th day of September every year, the Environment Statement Report for the financial year ending 31st March in the prescribed FORM-V as per the provisions of Rule 14 of the Environment (Protection) (second Amendment) Rules, 1992.
31. You should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly. You shall conduct Dioxin Furan monitoring by third party NABL Accredited agency once in every year and submit report to Sub Regional Officer.
32. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
33. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
34. You shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
35. You shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website (www.mpcb.gov.in).
36. You shall create the Environmental Cell by appointing an Environmental Engineer and Chemist for looking after day-to-day activities related to compliance of CCA.
37. You should comply with the Hazardous and Other Wastes (M & TM) Rules, 2016 , Bio Medical Waste Management Rules,2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous and Other Wastes (M & TM) Rules, 2016 for the preceding year in Form-IV by 30th June of every year

---

This certificate is digitally & electronically signed.

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
Fax: 24023516
Website: http://mpcb.gov.in
Email: cac-cell@mpcb.gov.in

Kalpataru Point, 2nd and 4th floor, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai-400022

RED/L.S.I (O53)
No:- Format1.0/CAC/UAN No.MPCB-CONSENT-0000141837/CR/2211000540

Date: 08/11/2022

To,
Karmaveer Shankarrao Kale Sahakari Sakhar Karkhana Limited,
Distillery Division (Country Liquor Unit),
Suregaon (109/1), At - Gautamnagar,
Tal. - Kopargaon, Dist. - Ahmednagar.

Your Service is Our Duty

Sub: Renewal of Consent for manufacturing of Country liquor with increased in C.I., under RED category.

Ref:
1. Earlier consent granted vide no. Format1.0/CAC/UAN No.MPCB-CONSENT-0000089810/CO-2012001391 dated 30.12.2020.
2. Minutes of 6th CAC meeting held on 30.08.2022.

Your application No.MPCB-CONSENT-0000141837 Dated 21.06.2022

For: grant of Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. **The consent to renewal is granted for a period up to 31/08/2025**
2. **The capital investment of the project is Rs.20.0084 Crs. (As per C.A Certificate submitted by industry Existing-Rs. 18.156 + Increase - Rs. 1.852 Crs.)**
3. **Consent is valid for the manufacture of:**

Sr No	Product	Maximum Quantity	UOM
Products			
1	Country Liquor	625000	Box/M
2	Hand Sanitizer (by Mixing process)	2000	Lit/Day

4. **Conditions under Water (P&CP), 1974 Act for discharge of effluent:**

Sr No	Description	Permitted (in CMD)	Standards to	Disposal Path
1.	Trade effluent	75	As per Schedule-I	On land for irrigation
2.	Domestic effluent	0	As per Schedule-I	Not Applicable

5. **Conditions under Air (P& CP) Act, 1981 for air emissions:**

Sr No.	Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
NA				

6. **Non-Hazardous Wastes:**

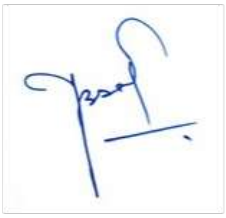
Sr No	Type of Waste	Quantity	UoM	Treatment	Disposal
1	Broken Glass Bottles, Glass & Caps	1.0	MT/M	REUSED	SALE TO AUTHORISED VENDER

7. **Conditions under Hazardous & Other Wastes (M & T M) Rules 2016 for treatment and disposal of hazardous waste:**

Sr No	Category No./ Type	Quantity	UoM	Treatment	Disposal
NA					

8. The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding on the industry.
9. This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
10. This consent is issued pursuant to the decision of the 6th Consent Appraisal Committee Meeting held on 30.08.2022.
11. Industry shall install online continuous monitoring system as per CPCB guidelines & data to be transmitted directly from Data Logger to Board server .
12. The applicant shall make an application for renewal of consent 60 days prior to date of expiry of the consent. (Operate/Renewal)
13. Industry shall submit/extend Bank Guarantee of Rs. 5 lakh towards compliance of consent conditions.

. This consent is issued as per communication letter dated 03/11/2022 which is approved by competent authority of the board.



Signed by: Dr. Y.B.Sontakke
Joint Director(WPC) & InCharge Of CAC-Cell
For and on behalf of,
Maharashtra Pollution Control Board
cac-cell@mpcb.gov.in
2022-11-08 12:02:45 IST

Received Consent fee of -

Sr.No	Amount(Rs.)	Transaction/DR.No.	Date	Transaction Type
1	150000.00	MPCB-DR-12756	24/06/2022	RTGS
2	15000.00	MPCB-DR-13040	08/07/2022	NEFT

Copy to:

1. Regional Officer, MPCB, Nashik and Sub-Regional Officer, MPCB, Ahmednagar
- They are directed to ensure the compliance of the consent conditions.
2. Chief Accounts Officer, MPCB,Sion, Mumbai
3. CC-CAC desk - for record & website updation.

SCHEDULE-I

Terms & conditions for compliance of Water Pollution Control:

1. A] As per your application, you have segregated trade effluent into weak stream & strong stream and provided Effluent Treatment Plant (ETP) comprising of:

   i) Strong COD/TDS stream of CMD - Treatment system comprising of Primary (Primary after stmt).

   ii) Weak COD/TDS stream of CMD - Treatment system comprising of .

   B] The Applicant shall operate the effluent treatment plant (ETP) to treat the trade effluent so as to achieve the following standards prescribed by the Board or under EP Act, 1986 and Rules made there under from time to time, whichever is stringent:

Sr.No	Parameters	Limiting concentration not to exceed in mg/l, except for pH
(1)	pH	6.0 -8.5
(2)	BOD (3 days 27°C)	30
(3)	COD	250
(4)	TSS	100
(5)	Oil & Grease	10

2. A] Generation - Nil

   B] Treatment - NA

   C] Disposal - NA

3. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification there of & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
4. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
5. The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act:

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, spraying in mine pits or boiler feed	0.00
2.	Domestic purpose	0.00
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	175.00
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)
5.	Gardening	0

6. The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance/ CREP guidelines.

SCHEDULE-II

Terms & conditions for compliance of Air Pollution Control:

Not Applicable

SCHEDULE-III

Details of Bank Guarantees:

Sr. No.	Consent (C2E/ C2O /C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	C to O	500000	15 days	Towards O & M of pollution control systems and compliance of consent conditions	31.08.2025	28.02.2026

BG Forfeiture History

Srno.	Consent (C2E/C2O/C2R)	Amount of BG imposed	Submission Period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
NA						

BG Return details

Srno.	Consent (C2E/C2O/C2R)	BG imposed	Purpose of BG	Amount of BG Returned
NA				

SCHEDULE-IV

General Conditions:

1. The Energy source for lighting purpose shall preferably be LED based
2. The PP shall harvest rainwater from roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial applications within the plant
3. Conditions for D.G. Set
   a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
   b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
   c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper sitting and control measures.
   d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.

e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.

f) D.G. Set shall be operated only in case of power failure.

g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.

h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.

4. The applicant shall maintain good housekeeping.
5. The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
6. The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
7. The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
8. The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can downloaded from MPCB official site).
9. The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
10. The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated. 18.11.2009 as amended.
11. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
12. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
13. The PP shall provide personal protection equipment as per norms of Factory Act
14. Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly.
15. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
16. The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.

17. The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M & TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment.
18. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
19. Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website (www.mpcb.gov.in).
20. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
21. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
22. The industry should not cause any nuisance in surrounding area.
23. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
24. The industry shall create the Environmental Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and irrigation field where treated effluent is used for irrigation.
25. The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
26. The industry should comply with the Hazardous and Other Wastes (M & TM) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous and Other Wastes (M & TM) Rules, 2016 for the preceding year April to March in Form-IV by 30th June of every year.
27. The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
28. The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
29. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions.

30. The firm shall submit to this office, the 30th day of September every year, the Environment Statement Report for the financial year ending 31st March in the prescribed FORM-V as per the provisions of Rule 14 of the Environment (Protection) (second Amendment) Rules, 1992.
31. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
32. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
33. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.

This certificate is digitally & electronically signed.

F.No. J-11011/690/2008- IA II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(IA-IISection)

Indira Paryavaran Bhawan
Jorbagh Road, New Delhi - 3
Dated: 2nd September, 2019

To

M/s Karmaveer Shankarrao Kale Sahakari Sakhar Karkhana Limited
(Distillery Division)
Gautamnagar, Post Kopelwadi
District **Ahmednagar** - 423602 (Maharashtra)

Sub: Expansion of Molasses based Distillery by M/s Karmaveer Shankarrao Kale Sahakari Sakhar Karkhana Limited at Gautamnagar, Taluka Kopergaon, District Ahmednagar (Maharashtra) - Environmental Clearance - reg.

Sir,

This has reference to your proposal No.IA/MH/IND2/53009/2009dated 28th February 2019, submitting the EIA/EMP report on the above subject matter.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the projectfor expansion of molasses based distillery from 30 KLPD to 45 KLPD by M/s Karmaveer Shankarrao Kale Sahakari Sakhar Karkhana Limited in an area of 95 ha located at Gautamnagar, Kopelwadi, Taluka Kopergaon, District Ahmednagar (Maharashtra).

3. Existing land area is 95 ha. No additional land would berequired for the proposed expansion. Industry has developed greenbelt in an area of 31.35 ha covering 33% of total project area. The estimated project cost is Rs.41crore. The capital cost earmarked towards environmental pollution control measures is Rs.35 crore and the recurring cost (O&M) will be about Rs.2.5 crores per annum. Employment opportunity will be for 130 persons directly and 200 persons indirectly after expansion.

4. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, etc. within 10 km from the project site. Godavari river flows at a distance of 4 Km in NW-SE direction.

5. Total water requirement is estimated to be 500 cum/day, proposed to be met from Godavari Right Bank Canal.

Effluent/ spent wash of 415 cum/day will be treated through MEE followed by incineration boiler. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement after expansion will be 1.2 MW, which will be met from proposed 1.5 MW TG set attached to the incinerator boiler. DG sets of 675 kVA and 250 kVA to be used as standby during power failure shall be provided with adequate stack height as per CPCB norms.Incinerator boiler of 15 TPH will be installed to fulfill the steam and power requirement. ESP and stack height of 72 m will be provided to control particulate emissions.

CO_2 from fermenter house shall be recovered & sold and yeast sludge shall be used as manure.

SK

6. The project/activity was earlier covered under category A of item 5 (g) 'Distilleries' of the Schedule to the EnvironmentImpact Assessment Notification, 2006, and thus requires appraisal/ approvalat central level in the Ministry.

7. Earlier, the Ministry granted environmental clearance vide letter dated 30th January, 2009 in favour of M/s The Kopergaon Sahakari Sakhar Karkhana Limited to the project for expansion of molasses based distillery from 30 KLPD to 45 KLPD at Gautamnagar, Kopelwadi, Taluka Kopergaon, District Ahmednagar (Maharashtra). The validity of the environmental clearance was extended up to 29th January, 2019.

8. The project proponent has reportedly completed the work within the validity period of environmental clearance, but the project yet not commissioned and the Consent to operate not obtained from the State Pollution Control Board. To complete the project vis-à-vis the scope of work and to operate the plant, the project proponent has requested for consideration of the proposal for grant of environmental clearanceunder para 7(ii) of the EIA Notification, 2006.

9. The proposal was considered by the Expert Appraisal Committee (Industry-2) in its meetings held on 27th March, 2019 and 26-28 June, 2019 in the Ministry. The project proponent and their accredited consultant presented the proposal for environmental clearance.The EAC, in exercise of the provisions contained in para 7(ii) of the EIA Notification, 2006, exempted the project from fresh EIA studies and public hearing, and recommended the project for grant of environmental clearance, with the same terms and conditions stipulated in the existing environmental clearance dated 30th January, 2009. The Committee suggested that the project will operate on ZLD principle and spent wash shall be incinerated in the proposed boiler of 15 TPH capacity, which is more environmental friendly than composting.

10. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for **expansion of molasses based distillery from 30 KLPD to 45 KLPD by M/s Karmaveer Shankarrao Kale Sahakari Sakhar Karkhana Limited** located at Gautamnagar, Taluka Kopergaon, District Ahmednagar (Maharashtra),under the provisions of the EIA Notification, 2006, with the same terms and conditions stipulated in the environmental clearance dated 30th January, 2009, and the additional condition as under:-

The generated spent wash shall be incinerated in the proposed boiler of 15 TPH capacity and there will be no discharge of treated/untreated waste water from the unit, ensuring Zero Liquid Discharge.

11. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

12. The conditions will be enforced, *inter alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

SK
2/9/2019

(S. K. Srivastava)
Scientist E

Copy to:-

1. The Deputy DGF(C), MoEF&CC Regional Office(WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Line, Nagpur - 1
2. The Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, Mumbai - 32
3. The Member Secretary, Central Pollution Control Board, PariveshBhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
4. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th Floor, Opp. Cine Planet, Sion Circle, Mumbai - 22
5. Guard File/Monitoring File/Website/Record File

SK
2/9/2019

(S. K. Srivastava)
Scientist E

F. No. J-11011/690/2008- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan
CGO Complex, Lodhi Road

E-mail : pb.rastogi@nic.in
Telefax : 011: 2436 7668
Dated 12th January, 2011

To,

The General Manager
M/s The Kopergaon SSK Ltd.
Gatuam Nagar (Post Kolpewadi- 423602)
Kopargaon, Ahmednagar (Maharashtra)

E-mail: Kosakabhingari@rediffmail.com ; Fax No. : 02423-261219

CORRIGENDUM

Subject: Expansion of Molasses Based Distillery Unit (30 KLPD to 45 KLPD) at Gautamnager P.O. Kolpewadi, Tehsil Lopargaon Distirct Ahmednager, Maharashtra by M/s The Kopargaon sahakari Sakhar Karkahna Limited (Distillery Division) – Amendment reg.

Ref. : 1) Your letter no. nil dated 16th August, 2010.
2) Ministry's letter no. J-11011/690/2008- IA II (I) dated 30th January, 2009.

Sir,

Kindly refer your letter dated 16th August, 2010 and subsequent correspondence vide letter dated 3rd December, 2010 regarding above mentioned project. The proposal was discussed and considered in the 15th Expert Appraisal Committee (Industry-2) meeting held during 22nd-23rd October, 2010.

2. The matter was further examined in the Ministry. The following may be amended in the Ministry's letter no. J-11011/690/2008- IA II (I) dated 30th January, 2009:

Para 5; A SPECIFIC CONDITIONS; S.N. i.; Line 2 to 4:

For **ii** The spent wash after bio methanation in the bio digester shall be concentrated in the Multi effect evaporator to reduce its volume to 125 m^3/day. The concentrated spent wash shall be composted with press mud to achieve zero discharge.

Read **ii** The distillery shall adopt anaerobic digestion of spent wash followed by concentration by multi-effect evaporator (MEE) & incineration (Pyrolysis method) with press mud to achieve 'zero' discharge"

3. All the other conditions shall remain the same.

4. You are requested to keep this letter with the Environmental Clearance accorded vide letter No. F. No. J-11011/690/2008- IA II (I) dated 30th January, 2009.

5. This has been issued with prior approval from the Competent Authority in the Ministry.

The Kopargaon S.S.K. Ltd.
Distillery Division
31 MAR 2011
INWARD No. 5607

12/1/11
(Dr. P.B. Rastogi)
Director

P.T.O.

Copy to :

1. The Principal Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, Mumbai - 400 032
2. The Chief Conservator of Forests (Central), Regional Office (Northern Zone), Bay No.24-25, Sector 31-A, Dakshim Marg, Chandigarh-160030.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. Cine Planet, Sion Circle, Mumbai-400 022.
5. The Adviser, IA II(I), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Guard File/Monitoring File/Record File.

12.1.11

(Dr. P. B. Rastogi)
Director

भारत सरकार
पर्यावरण एवं वन मंत्रालय
Government of India
Ministry of Environment & Forests
(IA Division)

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi – 110 003
E-mail: plahujarai@yahoo.com
Telefax: 011: 2436 3973

F. No. J-11011/690/2008- IA II (I) Dated: January 30, 2009

To,

The General Manager
M/s The Kopergaon Sahakari Sakhar Karkhana Limited
(Distillery Division)
At Gautam Nagar (Post, Kolpewadi-423602
Kopargaon Talyuka, Ahmednagar district

Sub: Expansion of molasses based distillery unit from 30 KLPD to 45 KLPD at Gautamnagar P.O. Kolpewadi, Tehsil Kopargaon District Ahmednagar Maharashtra by M/s. The Kopargaon Sahakari Sakhar Karkhana Limited (distillery division) – Environmental clearance.

Sir,

This has reference to your letter No. KSSK-DD/2008-09/1582 dated 23rd August,2008 along with a copy of Form-1 and detailed pre-feasibility report on the above subject seeking environmental clearance under the EIA Notification, 2006.

2. The Ministry of Environment and Forests has examined the proposal. It is noted that M/s The Kopargaon SSK Ltd have proposed for expansion of distillery unit from 30 to 45KLPD in district Ahmednagar in Maharashtra. The river Godavari flows at a distance of 4 km from the project site. It is proposed to adopt continuous fermentation technology. The Distillery is attached to sugar unit of 3000 TCD capacity and the average crushing capacity per annum is six lakh tonnes. The press mud availability is about 25,000 MT per annum. Company has acquired 95 ha of land area of which 10 ha is required for distillery and ETP. No additional land is required for expansion of distillery unit. Unit will operate for 270 days. Cost for expansion project would be Rs 15.0 crores.

3. The water requirement of 500 m3/d will remain same after the proposed expansion and will be met from the river Godavari. Power requirement of Two bio-digesters of 4100 cum capacity each have been installed which would be adequate for the proposed expansion. It is proposed to adopt "Anaerobic Digestion of spent wash followed by "concentration in Multiple Effect Evaporator" and "composting" with press mud to achieve zero discharge. The spent wash generation will be 450 m3/d which will be reduced to 125 m3/d after concentration. The company has earmarked an area of 3.2 ha for compost yard, storage of press mud and compost.

4. All the molasses based distilleries have been listed at Sl. no. 5 (g) in category 'A', as per the EIA notification, 2006 and have to be appraised by central Government. The Expert Appraisal Committee considered the project in 89th Meeting held on 22-23rd December, 2008. The Committee recommended the project for environmental clearance. Public hearing was exempted as per para 7(ii) of Environmental Impact Assessment Notification, 2006.

The Kopargaon S.S.K.Ltd.,
Distillery Division
Date :- 2 FEB 2009
INWARD NO. 4713

5. Based on the information submitted by project authorities, the Ministry of Environment and Forests hereby accords environmental clearance to above project under the provisions of EIA Notification dated 14th September 2006 subject to strict compliance of the following Specific and General conditions:

A. SPECIFIC CONDITIONS:

i. The company shall adopt continuous fermentation technology and spent wash generation shall not exceed 450 m3/d. The spent wash after bio methanation in the bio digester shall be concentrated in the Multi effect evaporator to reduce its volume to 125m3/d. The concentrated spent wash shall be composted with press mud to achieve zero discharge.

ii. Land and other requirements for treatment of spent wash with press mud shall be as per the CPCB guidelines. The company shall earmark an area of 8 acre for bio composting and bio-methanation plant etc. The compost yard shall be made impervious as per the CPCB guidelines.

iii. The spent wash shall be stored in impervious pucca lagoons. The spent wash lagoons shall have proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. As per the CPCB recommendation, storage for the concentrated spent wash shall not exceed 30 days capacity.

iv. Adequate numbers of ground water quality monitoring stations by providing piezometers around the compost plant and project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry.

v. The company shall obtain permission from the State Irrigation Department to draw the water.

vi. Green belt in 33% of the plant area shall be provided to mitigate the effects of fugitive emissions all around the plant and compost yard as per the CPCB guidelines in consultation with the local DFO.

vii. Company shall adopt rainwater harvesting measures to recharge the ground water.

B. GENERAL CONDITIONS:

i. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.

ii. Ambient Air Quality Monitoring Stations shall be set up in the down wind direction as well as where maximum ground level concentration of SPM, SO2, NOx, are anticipated in consultation with the State Pollution Control Board.

iii. Adequate number of influent and effluent quality monitoring stations shall be set up in consultation with the State Pollution Control Board. Regular monitoring should be carried out for relevant parameters.

iv. The industry shall ensure that the treated effluent and stack emissions from the unit are within the norms stipulated under the EPA rules or SPCB whichever is more stringent. In case of process disturbances/failure of pollution control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.

v. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

vi. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA /EMP report.

vii. Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the medical records of each employee shall be maintained separately.

viii. A separate environmental management cell equipped with full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.

ix. The project authorities shall provide requisite funds for both recurring and non-recurring expenditure to implement the conditions stipulated by the non-recurring expenditure to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.

x. The implementation of the project vis-à-vis environmental action plans will be monitored by Ministry's Regional Office at Bhopal /State Pollution Control Board/Central Pollution Control Board. A six monthly compliance status report along with the monitored data shall be submitted to the monitoring agencies.

xi. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office.

xii. The Project Authorities shall inform the Regional Office as well as the Ministry the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.

6. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

7. The Ministry reserves the right to stipulate additional conditions if found necessary. The company will implement these conditions in a time bound manner.

8. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.

9.. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 alongwith their amendments and rules.

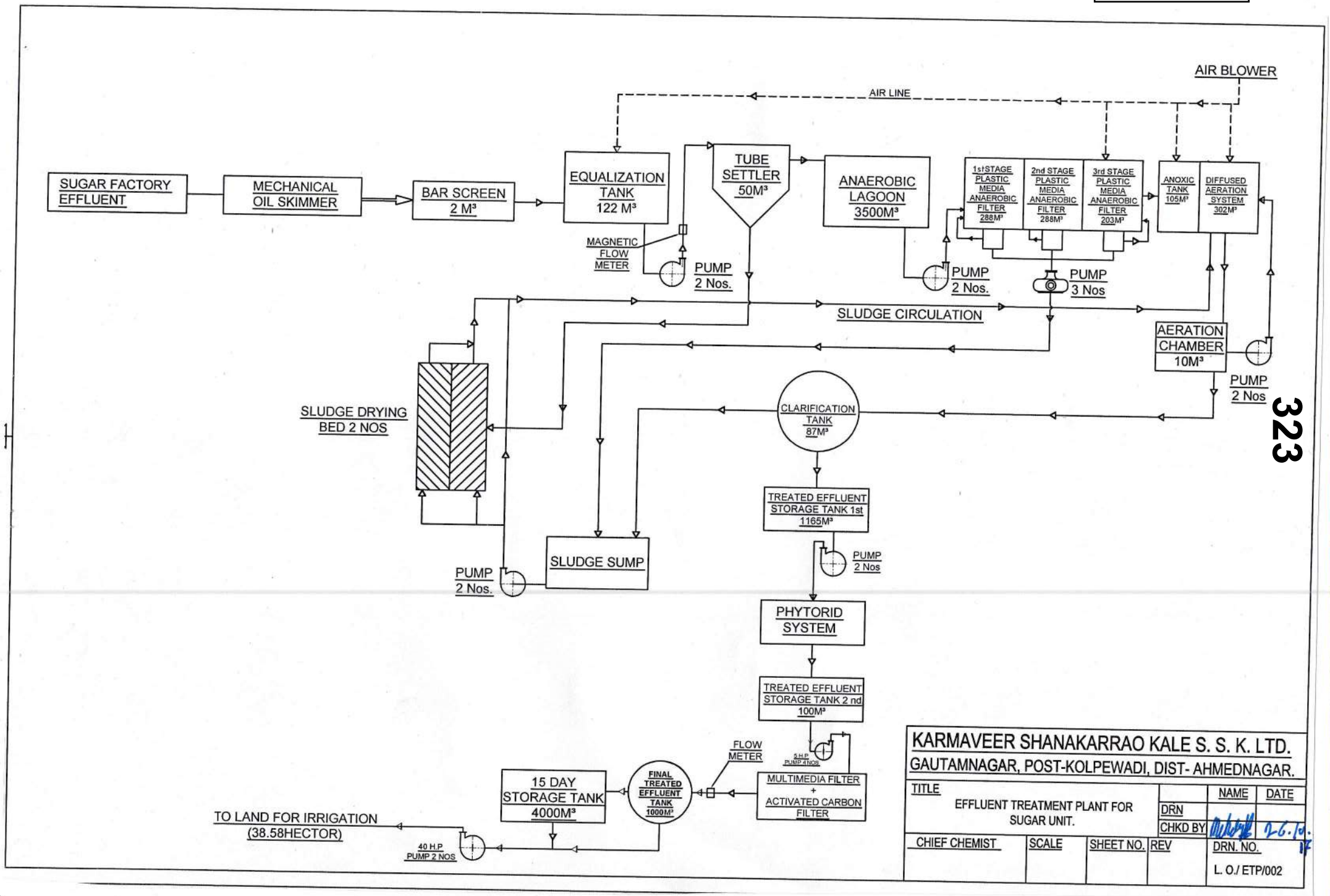
P. Ahujarai

(Dr. P. L. Ahujarai)
Director

Copy to:

1. The Secretary, Department of environment and forests, Govt. of Maharashtra.
2. The Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office, E - 3 / 240 Arera Colony Bhopal - 462 016.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar New Delhi – 110 032.
4. The Chairman Maharashtra Pollution Control Board, Shri Chatrapati Shivaji Maharaj Municipal Market Building, 4th Floor, Mata Ramabai Ambedaker Road, Mumbai- 400 001.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard File.
7. Monitoring File.
8. Record File.

(Dr. P. L. Ahujarai)
Director


AIR BLOWER
AIR LINE
SUGAR FACTORY EFFLUENT
MECHANICAL OIL SKIMMER
BAR SCREEN 2 M³
EQUALIZATION TANK 122 M³
TUBE SETTLER 50M³
ANAEROBIC LAGOON 3500M³
1st STAGE PLASTIC MEDIA ANAEROBIC FILTER 288M³
2nd STAGE PLASTIC MEDIA ANAEROBIC FILTER 288M³
3rd STAGE PLASTIC MEDIA ANAEROBIC FILTER 203M³
ANOXIC TANK 105M³
DIFFUSED AERATION SYSTEM 302M³
MAGNETIC FLOW METER
PUMP 2 Nos.
PUMP 2 Nos.
PUMP 3 Nos
SLUDGE CIRCULATION
AERATION CHAMBER 10M³
PUMP 2 Nos
SLUDGE DRYING BED 2 NOS
CLARIFICATION TANK 87M³
TREATED EFFLUENT STORAGE TANK 1st 1165M³
PUMP 2 Nos
PUMP 2 Nos.
SLUDGE SUMP
PHYTORID SYSTEM
TREATED EFFLUENT STORAGE TANK 2 nd 100M³
FLOW METER
5 H.P. PUMP 4 NOS.
MULTIMEDIA FILTER + ACTIVATED CARBON FILTER
FINAL TREATED EFFLUENT TANK 1000M³
15 DAY STORAGE TANK 4000M³
TO LAND FOR IRRIGATION (38.58HECTOR)
40 H.P PUMP 2 NOS
KARMAVEER SHANAKARRAO KALE S. S. K. LTD.
GAUTAMNAGAR, POST-KOLPEWADI, DIST- AHMEDNAGAR.
TITLE
EFFLUENT TREATMENT PLANT FOR SUGAR UNIT.
NAME
DATE
DRN
CHKD BY
2-6-17
CHIEF CHEMIST
SCALE
SHEET NO.
REV
DRN. NO.
L. O./ ETP/002

Annexure - 4

KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LTD
(DISTILLERY DIVISION)
At Gautamnagar, Po. Kolpewadi, Tal. Kopargaon, Dist. Ahmednagar

Spentwash Zero Liquid Discharge (ZLD) Project

Distillery has up-grade distillery effluent treatment system for achieving 100% distillery capacity utilization and at the same time achieve the Zero liquid discharge. Distillery has installed the spentwash evaporation plant to reduce the spentwash generation as a primary effluent treatment system followed by installation of incineration boiler to incinerate the concentrated spent wash as final effluent treatment system. Distillery has also installed a TG Set to generate electricity which will be consumed in distillery & installed condensate polishing unit (CPU) for low strength effluent (process condensate and spent lees) treatment so as to recycle the same in the process.

Therefore the fresh water consumption will be reduced drastically. In Evaporation and Incineration system the multiple effect evaporators (MEE) are used for spentwash concentration and for getting more steam economy. The more number of effects in evaporation plant will result into high steam economy. The spentwash is required to be concentrated upto 55 to 60% solids for spent wash incineration application.

In spentwash incineration boiler and from TG set the steam and power requirement of distillery is totally fulfilled.

Encl. Flow Sheet

Bio-Gas 25/4

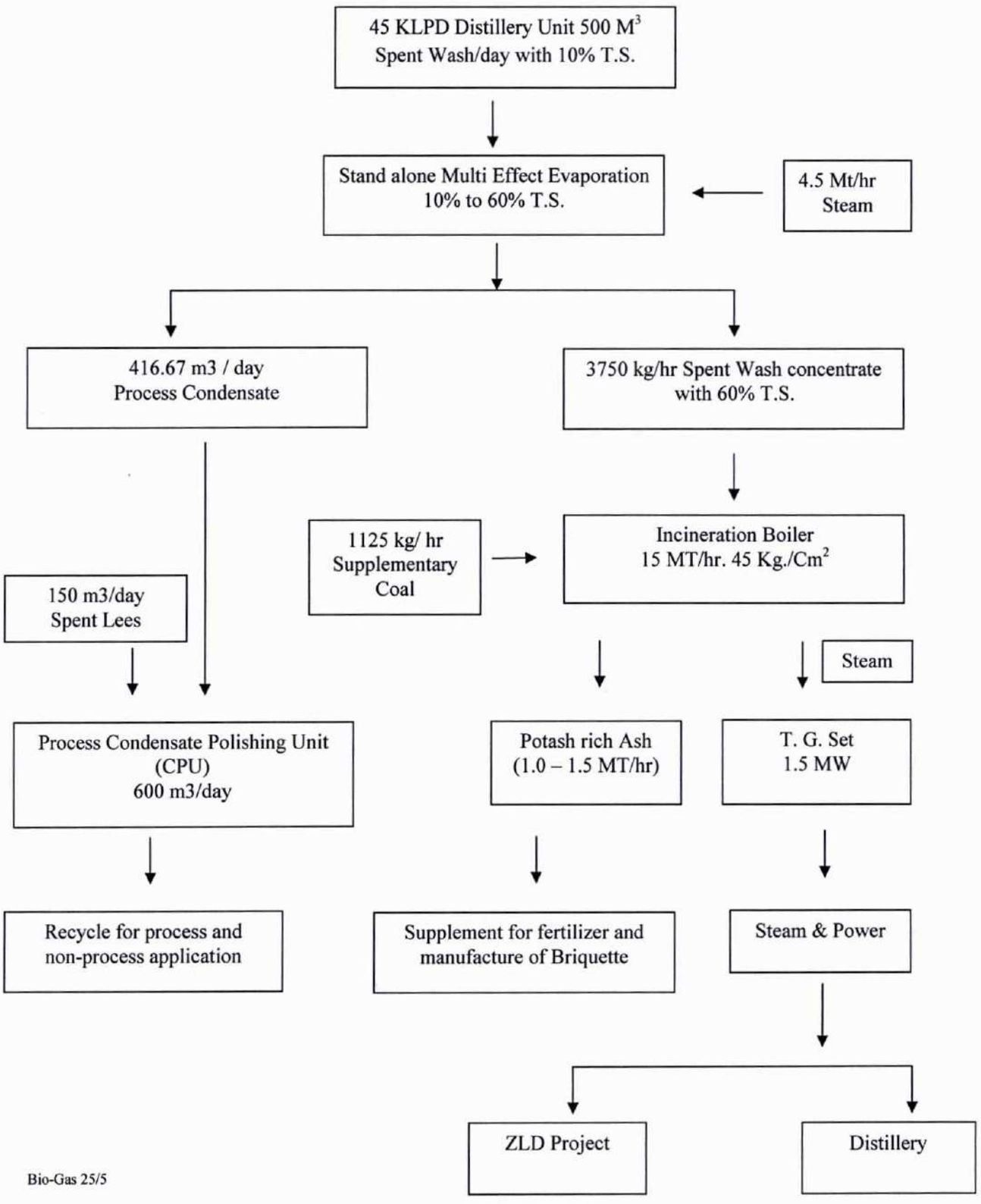
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LTD

(DISTILLERY DIVISION)

At Gautamnagar, Po. Kolpewadi, Tal. Kopargaon, Dist. Ahmednagar

Zero Liquid Discharge

Effluent Treatment Process Flow Diagram



Bio-Gas 25/5

Annexure - 5

Photographs taken during visit of Joint Committee on dated 19/12/2024

Annexure - 6

Annexure - 6

Indian Standard IS 10500:2012 Drinking Water		pH	Total Dissolved Solids (TDS)	Total Fixed Solids (TFS)	Suspended Solids (SS)	Total Alkalinity	Ammonical Nitrogen	Biochemical Oxygen Demand (BOD)	Chloride	Chemical Oxygen Demand (COD)	Hardness (total)	Nitrate Nitrogen	Phosphate (total)	Sulphate	Potassium
Permissible Limit		**6.5-8.5**	**2000**		**100**	**600**		**30**	**1000**	**250**	**600**			**400**	
Sr. No.	**Location Name & Address**														
1	1) K1 Quarry 201 Karkhana Khan	7.6	2260.0	1716.0	29.0	238.0	3.37	4.20	689.79	20.0	812.00	3.92	0.68	301.70	NA
2	2) K2 Quarry of Gut No 202 (Dhanwate Khan)	8.3	1152.0	834.0	92.0	192.0	1.70	10.50	204.94	20.0	780.00	0.70	0.51	91.88	NA
3	3) K3 Pipeline og Gut No 203 old solar pit	4.6	1874.0	1441.0	246.0	606.0	7.76	850.00	179.94	3616.0	870.00	4.37	1.30	303.50	NA
4	4) K4 Sub well Gut No 191 (Cemented)	7.2	24428.0	19370.0	192.0	176.0	3.15	120.00	8597.33	368.0	11000.00	4.45	0.65	2097.00	NA
5	5) K5 Road side drain of Gut No 194	7.6	14974.0	1120.0	95.0	478.0	9.42	180.00	6947.85	656.0	5800.00	ND	ND	1143.00	NA
6	6) K6 Open well of Shri. Kisan P. Navale, Gut No. 184, Laxmanpur, Tal. Sinnar	7.6	3734.0	NA	23.0	270.0	8.24	4.20	1189.63	20.0	1410.00	3.65	0.90	565.80	NA
7	7) K7 Open well Laxman Kisan Karle, Gut No. 206, Kolgaon Mal	7.6	3356.0	2594.0	57.0	340.0	4.84	7.00	789.76	24.0	1380.00	5.38	0.62	715.50	NA
8	8) K8 Open well Somnath Lahanu Ghayal Gut No.173, Laxmanpur, Tal. Sinnar	7.6	2762.0	2389.0	42.0	356.0	3.63	6.00	699.78	28.0	1380.00	3.77	0.73	425.60	NA
9	9) K9 Open well of Raju Manohar Mokal, Gut No 210/3, Kolgaon Mal	7.7	1672.0	1476.0	26.0	302.0	1.46	3.80	399.88	16.0	780.00	4.87	0.79	280.30	NA
10	10) K10 Open well of Kale SSK Gut No 202, Kolgaon Mal	7.5	1298.0	844.0	77.0	632.0	2.46	19.50	269.92	88.0	236.00	0.59	1.07	117.24	NA
11	11) K11 Open well Dashrath Ramchandra Mokal Gut No 231, Kolgaon Mal	7.8	980.0	794.0	22.0	266.0	0.80	3.80	201.94	16.0	420.00	5.47	0.56	177.40	NA

Annexure - 7

A REPORT ON

ASSESSMENT AND REMEDIAL MEASURES TAKEN FOR SOIL FERTILITY AND GROUND WATER QUALITY

SUBMITTED BY :-

KARMAVEER SHANKARRAO KALE

S.S.K.LIMITED,GAUTAMNAGAR

POST-KOLPEWADI,TAL-KOPARGAON

DIST-AHMEDNAGAR,PIN-423602

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602.
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

INDEX

A REPORT

on

"Assessment of Soil Fertility and Ground Water Qulity in the jurisdiction of Karmaveer Shankarrao Kale Sahkari Sakhar Karkhana Ltd., Gautamnagar, Kopargaon"

Submitted by

Principal Investigator
&
Head
Department of Soil Science and Agricultural Chemistry,
Mahatma Phule Krishi Vidyapeeth,
Rahuri – 413 722 Dist- Ahmednagar
(Maharashtra)

331

Staff associated

Dr. A.L. Pharande
Principal Investigator &
Head,
Dept. of Soil Science & Agril. Chemistry,
M.P.K.V., Rahuri

Prof. S.R. Shelke
Co-Principal Investigator &
Assistant Professor,
Dept. of Soil Science & Agril. Chemistry,
M.P.K.V., Rahuri

Dr. A.G. Durgude
Co-Principal Investigator &
Analytical Chemist,
Micronutrient Research Scheme,
Dept. of Soil Science & Agril. Chemistry,
M.P.K.V., Rahuri

Department of Soil Science and Agricultural Chemistry,
Mahatma Phule Krishi Vidyapeeth, Rahuri – 413 722
Dist. Ahmednagar (Maharashtra)

Report on Assessment of soil fertility and ground water quality in the jurisdiction of Karmaveer Shankarrao Kale Sahakari Sakhar Karkhana Ltd. Gautamnagar, Kopargaon

1.	**Name of the Scheme/ Department**	:	Department of Soil Science & Agril. Chemistry, M.P.K.V., Rahuri.
2.	**Name of implementing agency**	:	Director of Research, M.P.K.V., Rahuri
3.	**Name of Principal Investigator**	:	Dr. A.L. Pharande, Head, Dept. of SSAC, M.P.K.V., Rahuri
	Name of Co-Principal Investigator	:	Prof. S.R. Shelke, Asstt. Prof. SSAC Dr. A.G. Durgude, Analytical Chemist
4.	**Name of Company**	:	Karmaveer Shankarrao Kale Sahakari Sakhar Karkhana Ltd. Gautamnagar, Kopargaon
5.	**Product**	:	Soil and irrigation water analysis
6.	**Period of Project**	:	20/03/2015 to 28/06/2015
7.	**Type of study**	:	Assessment of soil fertility and ground water quality
8.	**Pest/Disease/weed/testing of seed/etc.**	:	No
9.	**Amount received**	:	Rs. 1,05,930/-
10.	**10% institutional charges remitted DD. No. & date:**	:	Rs. 9630/-
11.	**Acceptance letter of DOR office**	:	No. DOR/DDR III/3938/2015 dated 2.1.2015

MATERIALS AND METHODS

The area of Karmaveer Shankarrao Kale Sahakari Sakhar Karkhana Ltd. Gautamnagar, Kopargaon was surveyed for Assessment of soil fertility and ground water quality. The GPS base soil samples were collected in the in the jurisdiction of Karmaveer Shankarrao Kale Sahakari Sakhar Karkhana Ltd. Gautamnagar, Kopargaon.

The soils in the jurisdiction of Karmaveer Shankarrao Kale Sahakari Sakhar Karkhana Ltd. Gautamnagar, Kopargaon, Dist. Ahmednagar are shallow, medium deep to deep, with varying slope and topography are grouped under the order Entisol and Inceptisol with great group of Ustorthents and Haplustept, which comprise member of fine loamy mixed isohyperthermic family of Typic Ustorthents, Typic and Vertic Haplustept . The soil colour ranged between medium brown to dark grey brown with 30 cm depth. The texture of the soil varied from sandy clay, clay loam to clay. The selected fields were shallow and medium deep of order Entisol and Inceptisol with low to normal soils.

The factory area comes under semi-arid tropics with an annual rainfall of 450 to 750 mm. The rainfall of this area is unevenly distributed in ten to fifteen meteorological weeks. Out of the total rainfall received in a year maximum rainfall was received from July to August. The intensity of rainfall was decreased from September and was ceased from the month of December. The mean annual maximum and minimum temperatures ranged in between 27.07°C to 43.5°C and 15.00°C to 24.00°C, respectively.

The GPS base initial soil samples at 30 cm depth were collected at every location in the periphery of 5 km from study area for analysis of pH, EC, organic carbon, available nitrogen, available phosphorus, available potassium. GPS based irrigation water samples from irrigation source i.e. canals, open/boreswells, ground water samples from study area at different locations were collected and analyzed. The Ground water quality was monitored for pH, EC, Ca^{2+}, Mg^{2+}, Na^{+}, K^{+}, CO_3^{2-}, HCO_3^{-}, SO_4^{2-}, Cl^{-}, NO_3^{--}, BOD and COD. Standard methods of analysis were used for analysis as presented in table 1.

Table 1. Standard analytical methods used for analysis

Sr. No.	Properties	Method	Reference
A	**Soil analysis**		
1	pH (1:2.5)	Potentiometric	Jackson (1973)
2	EC (1:2.5)dSm^{-1}	Conductometric bridge	Jackson (1973)
3	Organic carbon (%)	Walkey and Black	Nelson and Sommer (1982)
4	Available N (kg ha^{-1})	Alkaline permanganate	Subbiah and Asija (1956)
5	Available P (kg ha^{-1})	0.5 M $NaHCO_3$ pH 8.5 (Ascorbic acid)	Watanabe and Olsen (1965)
6	Available K (kg ha^{-1})	N M NH_4OAC extract	Jackson (1973)
B	**Water analysis**		
7	pH (1:2.5)	Potentiometric	Jackson (1973)
8	EC (1:2.5)dSm^{-1}	Conductometric bridge	Jackson (1973)
9	Ca^{++}, Mg^{++} (meq $^{-1}$)	Versenate titration	Richards (1968)
10	Na^{+} (me L^{-1})	Flame photometer	Richards (1968)
11	CO_3^{-}, HCO_3^{-} Cl^{-} (me L^{-1})	Volumetric	Richards (1968)
12	SO_4^{-}(me L^{-1})	Turbidimetry	Chopra and Kanwar (1980)
13	BOD (ppm)	Dissolved oxygen method	Franson (1985)
14	COD (ppm)	Reflux method	Franson (1985)

Acton plan of project

Table 2

Sr. No	Nature of work	Approximate Period
1	Survey of sugar factory premises for selection of site	20/03/2015 to 23/03/2015
2	GPS based selection of soil sampling site on the map	24/03/2015
3	Collected GPS base soil and water samples in the jurisdiction of sugar factory	25/03/2015 to 05/04/2015
4	Transportation of samples in the laboratory for processing	6/04/2015
5	Analysis of samples	7/04/2015 to 25/06/2015
6	Interpretation of results	26/06/2015
7	Result and discussion	27/06/2015
8	Conclusion and remedial measure suggested	28/06/2015

Soil sample collection

Water sample collection

4

Table 3. List of farmers

Sr. No.	Name of Farmer	Village Name	Gat No.	GPS Reading
1.	Shri. Balasaheb Popat Kolpe	Kolgaon Thadi	173	Way Point -545 Elevation – 517 N -19°54.520' E -74°22.998'
2.	Sugar Factory Own Land	Suregaon	138	WP -565, Ele. – 525m N. -19°53.545' E. -74°20.627'
3.	Shri. Ranjit Tawar	Shahajpur	105	WP -569, Ele. – 535m N. -19°52.934' E. -74°20.367'
4.	Shri. Rajendra Raghunath Kadam	Suregaon	346	WP -148, Ele. –514m N. -19°54.304' E. -74°20.961'
5.	Sugar Factory Own Land	Kolpewadi	289/1	WP- 521, Ele. -524m N. -19°53.876', E- 074°21.526'
6.	Shri. Bhausaheb Mhata Kolpe	Kolpewadi	198	WP- 553, Ele. -519m N. -19°53.994' E- 074°21.019'
7.	Shri. Ajitkumar Bansilal Shetti	Suregaon	200	WP -554, Ele. – 519m N. -19°53.994' E. -74°21.019'
8.	Shri.Sanjay Yadav Shermale	Suregaon	199	WP -555, Ele. – 521m N. -19°53.953' E. -74°20.987'
9.	Shri. Chandrakant Ramrao Karvate	Suregaon	351	WP -564, Ele. – 520m N. -19°53.982' E. -74°20.896'
10.	Shri Santu Gopala Kolpe	Kolgaon Thadi	115	N-544 19°53.999' E-74°21.754'
11.	Sugar Factory Own Land	Suregaon	149	WP -566, Ele. – 527m N. -19°53.545' E. -74°20.627'
12.	Sugar Factory Own Land	Suregaon	176	WP -567, Ele. – 526m N. -19°53.544' E. -74°20.510'
13.	Sheli Mendhi Palan (Karkhana)	Shahajpur	1054	WP -568, Ele. – 541m N. -19°52.935'E. -74°20.404'
14.	Shri. Rajendra Popat Kolpe	Kolgaon Thadi	125	NP- 547, El. -515m N. -19°54.585', E- 074°22.012'
15.	Sugar Factory Own Land	Shahajpur	106	WP -148, Ele. – 534m N. -19°53.973' E. -74°20.331'
16.	Sugar Factory Own Land	Shahajpur	122	WP -148, Ele. – 534m N. -19°52.983' E. -74°20.347'
17.	Gautam Public School	Suregaon	124	WP -566, Ele. – 537m N. -19°53.164' E. -74°20.568'
18.	Gautam Public School	Suregaon	127	WP -566, Ele. – 536m N. -19°53.128' E. -74°20.589'
19.	Tanhubai Babanrao Kolpe	Shahajapur	135	WP -568, Ele. –529m N. -19°53.142' E. -74°20.928'
20.	Babanrao Bhimaji Kolpe	Suregaon	118	WP -569, Ele. – 529m N. -19°53.520' E. -74°21.268'
21.	Bhaskar Vishnu Kadam	Suregaon	135	WP -148, Ele. – 482m N. -19°54.002' E. -74°20.780'
22.	Vithabai Gopinat Gawali	Suregaon	350	WP -551, Ele. – 518m N. -19°54.173' E. -74°20.934'
23.	Ganpat Raghunath Kadam	Suregaon	350	WP -553, Ele. – 518m N. -19°54.218' E. -74°20.947'

24.	Shri. Rajendra Nivrutti Kale	Suregaon	350/1	WP -555, Ele. – 518m N. -19°54.236' E. -74°20.932'
25.	Shri. Chaburao Kushaba Male	Suregaon	211	WP -555, Ele. – 517m N. -19°54.268' E. -74°21.010'
26.	Shri. Jagannath Pandharinath Kadam	Suregaon	345	WP -564, Ele. – 515m N. -19°54.411' E. -74°20.938'
27.	Shri. Laxman Rambhau Garud	Suregaon	364	WP -567, Ele. – 514m N. -19°54.312' E. -74°20.935'
28.	Shri. Govind Santu Kolpe	Kolgaon Thadi	89	WP- 548, Ele. -514m N. -19°54.616', E- 074°22.204'
29.	Shri. Valmik Ramdas Halnor	Suregaon	189/2	WP -544, Ele. – 519m N. -19°53.940' E. -74°20.643'
30.	Shri. Mahendrakumar Husenchand Soni	Suregaon	126/2	WP -545, Ele. –527m N. -19°53.530' E. -74°20.999'
31.	Shri. Sayyad Ismail Patel	Shahajpur	68	WP -547, Ele. – 527m N. -19°52.867' E. -74°21.018'
32.	Shri. Abbas Chand Patel	Shahajapur	68/3	WP -551, Ele. – 537m N. -19°52.796' E. -74°21.010'
33.	Shri. Pramod Vishwanath Dalvi	Shahajapur	69	WP -553, Ele. – 537m N. -19°52.794' E. -074°20.993'
34.	Latabai Bhausaheb Kolpe	Shahajapur	68	WP -554, Ele. – 534m N. -19°52.808' E. -074°21.062'
35.	Shri. Nathu Haushiram Lonare	Shahajapur	140	WP -555, Ele. – 534m N. -19°53.058' E. -74°20.874'
36.	Shri. Gangaram Trimbak Dhygude	Shahajapur	125	WP -564, Ele. – 554m N. -19°53.012' E. -74°20.501'
37.	Shri. Babasaheb Changdev Kolpe	Shahajapur	126	WP -565, Ele. –540m N. -19°52.977' E. -74°20.550'
38.	Shri. Prakash Bharunath Kolpe	Shahajapur	96	WP -566, Ele. – 539m N. -19°52.664' E. -74°20.224'
39.	Satyabhama Karbhari Chaudhari	Shahajapur	84	WP -566, Ele. –535m N. -19°52.664' E. -74°20.251'
40.	Alka Subhash Khemnaar	Shahajapur	167	WP -567, Ele. – 535m N. -19°52.419' E. -74°20.077'
41.	Baburao Balagi Chaudhari	Shahajapur	94	WP -568, Ele. – 539m N. -19°52.458' E. -74°20.224'
42.	Shri. Pramod Vishwanath Dalvi	Shahajapur	69	WP -553, Ele. – 537m N. -19°52.794' E. -074°20.993'
43.	Latabai Bhausaheb Kolpe	Shahajapur	68	WP -554, Ele. – 534m N. -19°52.808' E. -074°21.062'
44.	Shri. Nathu Haushiram Lonare	Shahajapur	140	WP -555, Ele. – 534m N. -19°53.058' E. -74°20.874'
45.	Shri. Dashrath Ramchandra Mokal	Kolagon Mal	209	WP -129, Ele. – 533m N. -19°52.279' E. -74°20.211'
46.	Shri. Machindra Changdev Bharsakal	Laxmanpur	170	WP -148, Ele. –533m N. -19°52.320' E. -74°20.100'
47.	Sumanbai Maruti Ghayal	Laxmanpur	173	WP -544, Ele. – 535m N. -19°52.322' E. -74°20.014'
48.	Shri. Bhausaheb Kashinath Thorat	Laxmanpur	169	WP -545, Ele. –540m N. -19°52.364' E. -74°20.020'

49.	Shri. Dnyeshwar Khandu Kharat	Laxmanpur	179	WP -547, Ele. – 537m N. -19°52.460' E. -74°19.908'
50.	Shri. Maruti Nivrutti Thorat	Laxmanpur	178	WP -548, Ele. – 538m N. -19°52.409' E. -74°19.918'
51.	Chandrakala Karbhari Mahske	Laxmanpur	181/4	WP -548, Ele. – 538m N. -19°52.409' E. -074°20.918'
52.	Shri. Baburao Dhamodhar Mahske	Laxmanpur	181/3	WP -553, Ele. – 539m N. -19°52.424' E. -074°19.874'
53.	Shri. Bhimabai Ramdas Thakare	Laxmanpur	166	WP -554, Ele. – 538m N. -19°52.462' E. -74°20.026'
54.	Shri. Latabai Popat Thorat	Laxmanpur	158/1	WP -555, Ele. – 538m N. -19°52.492' E. -74°20.209'
55.	Shri. Eknath Bhandu Thorat	Laxmanpur	158/2	WP -564, Ele. –537m N. -19°52.523' E. -74°20.050'
56.	Shri. Santosh Vishnu Bidve	Laxmanpur	160	WP -565, Ele. – 536m N. -19°52.574' E. -74°20.034'
57.	Shri. Somnath Laxman Thorat	Laxmanpur	162	WP -565, Ele. –503m N. -19°52.644' E. -74°20.145'
58.	Sugar Factory Own Land	Kolgaon Mal	209	WP -566, Ele. – 530m N. -19°52.0911' E. -74°20.236'
59.	Vikas Balasaheb Kadam	Kolgaon Mal	211	WP -567, Ele. – 533m N. -19°52.101' E. -74°20.208'
60.	Shri. Vilas Paraji Handore	Kolgaon Mal	211/3, 9/2	WP -568, Ele. – 537m N. -19°51.996' E. -074°20.241'
61.	Shri. Madhavrao Pandurang Malgunde	Kolgaon Mal	211/2	WP -569, Ele. – 532m N. -19°51.847' E. -074°20.208'
62.	Shri. Machindra Rambhau Gaikawad	Kolgaon Mal	211/3	WP -085, Ele. – 531m N. -19°51.800' E. -74°20.202'
63.	Shri. Laxman Bhaurao Jadhav	Kolgaon Mal	188	WP -085, Ele. –532m N. -51. 755 ', E. -20.170'
64.	Shri. Dinkar Laxman Kandekar	Kolgaon Mal	189/2	WP -127, Ele. –534m N. -19°51.764' E. -74°20.130'
65.	Shri. Dinkar Bhaginath Kandekar	Kolgaon Mal	189/2	WP -128, Ele. – 535m N. -19°51.767' E. -74°20.057'
66.	Sugar Factory Own Land	Kolgaon Mal	103	WP -148, Ele. –532m N. -19°51.734' E. -74°19.923'
67.	Lankabai Subhash Gavande	Kolgaon Mal	192	WP -148, Ele. – 532m N. -19°51.734' E. -74°19.923'
68.	Sampat Dada Gavande	Kolgaon Mal	192/1	WP -544, Ele. – 834m N. -19°51.643' E. -74°19.891'
69.	Shri. Kailas Keru Gore	Kolgaonmal	198	WP -545, Ele. – 533m N. -19°51.820' E. -074°19.910'
70.	Shri. Dattu Keru Jore	Kolgaonmal	199	WP -548, Ele. – 537m N. -19°51.923' E. -074°19.91'
71.	Shri. Kachru Narayan Jore	Kolgaonmal	196	WP -847, Ele. – 539m N. -19°51.840 E. -74°19.892'
72.	Shri. Kisan Pandharinath Nawale	Kolgaonmal	186	WP -557, Ele. –537m N. -19°52.198 E. -74°19.761'
73.	Shri. Dnyeshwar Shankarrao Kolpe	Kolpewadi	282	WP -553, Ele. –508m N. -19°53.729' E. -74°21.527'

74.	Sakhubai Appa Kolpe	Kolpewadi	283	WP -554, Ele. – 507m N. -19°53.734' E. -74°21.532'
75.	Shri. Rangnath Malahari Kolpe	Kolpewad	283/1	WP -555, Ele. –508m N. -19°53.736' E. -74°21.517'
76.	Shri. Mohan Bhimaji Thorat	Kolpewadi	76	WP -564, Ele. – 510m N. -19°53.560' E. -74°21.747'
77.	Shri. Sopanrao Shankarrao Kolpe	Kolpewadi	278	WP -564, Ele. – 512m N. -19°53.538' E. -74°21.696'
78.	Chabubai Lahanu Khandekar	Kolpewadi	278/1	WP -565, Ele. – 572m N. -19°53.489' E. -074°21.714'
79.	Shri. Kachru Piraji Kolpe	Kolpewadi	77	WP -566, Ele. – 517m N. -19°53.464' E. -074°21.753'
80.	Shri. Dadasaheb Sampat Shinde	Kolpewadi	79	WP -567, Ele. – 520m N. -19°53.455 E. -74°21.756'
81.	Shri. Goraksha Piraji Kolpe	Kolpewadi	76/1	WP -569, Ele. –520m N. -19°53.451 E. -74°21.791'
82.	Shri. Kachru Piraji Kolpe	Kolpewadi	80	WP -566, Ele. –520m N. -19°53.451' E. -074°21.786'
83.	Shri. Dadasaheb Sampat Shinde	Kolpewadi	78	WP -879, Ele. – 520m N. -19°53.411' E. -74°21.774'
84.	Shri. Keshav Ghamaji Jeughale	Kolpewadi	274/4	WP -880, Ele. –518m N. -19°53.295' E. -74°21.712'
85.	Shri. Dharma Ramchandra Kolpe	Kolpewadi	268	WP -884, Ele. –522m N. -19°53.104' E. -74°21.706'
86.	Shri. Dharma Ramchandra Kolpe	Kolpewadi	270	WP -885, Ele. – 522m N. -19°53.102' E. -74°21.675'
87.	Shri. Dharma Ramchandra Kolpe	Kolpewadi	166	WP -886, Ele. – 522m N. -19°53.146' E. -74°21.650'
88.	Shri. Shivaji Ramchandra Kolpe	Kolpewadi	166	WP -887, Ele. – 525m N. -19°53.039' E. -074°21.768'
89.	Shri. Shivaji Ramchandra Kolpe	Kolpewadi	169	WP -887, Ele. – 525m N. -19°53.040' E. -074°21.841'
90.	Shri. Rabhaji Bharat Kolpe	Kolpewadi	265/1	WP -888, Ele. – 527m N. -19°53.012E. -74°21.714'
91.	Ratanbai Rabhaji Kolpe	Kolpewadi	258	WP -788, Ele. –527m N. -19°53.019 E. -74°21.524'
92.	Shri. Vinayak Bahirunath Kolpe	Kolpewadi	248	WP -889, Ele. –527m N. -19°52.758' E. -074°21.701'
93.	Shri. Sakharam Nathu Kolpe	Shahajapur	98	WP -890, Ele. – 541m N. -19°52.823' E. -74°20.358'
94.	Shri. Karbhari Nathu Kolpe	Shahajapur	98	WP -910, Ele. –540m N. -19°52.834' E. -74°20.367'
95.	Shri. Popat Nathu Kolpe	Shahajapur	98/2	WP -085, Ele. –540m N. -19°52.837' E. -74°20.340'
96.	Shri. Sonaji Kashinath Kolpe	Kolpewadi	290/2	WP -127, Ele. – 522m N. -19°53.907' E. -74°21.596'
97.	Shri. Sanjay Nathu Kolpe	Kolpewadi	98/1	WP -085, Ele. – 540m N. -19°52.810' E. -074°20.336'
98.	Jijabai Sanjay Kolpe	Kolpewadi	290/1	WP -128, Ele. – 520m N. -19°53.871' E. -074°20.611'

99.	Shri. Sagar Ashok Kolpe	Kolpewadi	96/2	WP -085, Ele. – 540m N. -19°52.772E. -74°20.312'
100	Shri. Sakahari Kashinath Kolpe	Kolpewadi	290/2	WP -085, Ele. –523m N. -19°53.021 E. -74°21.594'

Table 4. Irrigation water

Sr. No.	Name of Farmer	Village Name	Gat No.
1	Shri. Ajitkumar Bansilal Shetti	Suregaon	200
2	Shri. Balasaheb Popat Kolpe	Kolgaon Thadi	173
3	Shri. Rajendra Popat Kolpe	Kolgaon Thadi	125
4	Shri. Govind Santu Kolpe	Kolgaon Thadi	89
5	Shri. Chandrakant Sakharam Karvate	Suregaon	351
6	Shri. Somnath Laxman Thorat	Laxmanpur	198
7	Shri. Vikas Babasaheb Kadam	Kolgaon Mal	68/3
8	Shri. Vinayak Bahirunath Kolpe	Kolpewadi	248
9	Shri. Bhaskar Vishnu Kadam	Suregaon	189/2
10	Smt. Vithabai Gopinat Gawali	Suregaon	350
11	Shri. Ganpat Raghunath Kadam	Suregaon	350
12	Shri. Rajendra Nivrutti Kale	Suregaon	126/2
13	Shri. Chaburao Kushaba Mali	Suregaon	166
14	Shri. Jagannath Pandharinath Kadam	Suregaon	211/3
15	Shri. Laxman Rambhau Garud	Suregaon	364
16	Shri. Rajendra Raghunath Kadam	Suregaon	346
17	Shri. Valmik Ramdas Halnor	Suregaon	140
18	Shri. Mahendrakumar Husenchand Soni	Suregaon	82
19	Shri. Sayyad Ismail Patel	Shahajpur	68
20	Shri. Babasaheb Changdev Kolpe	Shahajapur	126
21	Shri. Prakash Bharunath Kolpe	Shahajapur	96
22	Smt. Satyabhama Karbhari Chaudhari	Shahajapur	84
23	Smt. Satyabhama Karbhari Chaudhari	Shahajapur	164
24	Shri. Machindra Rambhau Gaikawad	Kolgaon Mal	211/3
25	Shri. Kachru Piraji Kolpe	Kolpewadi	77
26	Shri. Mohan Bhimaji Thorat	Kolpewadi	76
27	Shri. Shivaji Ramchandra Kolpe	Kolpewadi	350/1
28	Shri. Sopanrao Shankarrao Kolpe	Kolpewadi	94
29	Shri. Keshav Ghamaji Jeughale	Kolpewadi	274/4
30	Shri. Dharma Ramchandra Kolpe	Kolpewadi	268
31	Shri. Bhausaheb Mhata Kolpe	Kolpewadi	198
32	Shri. Rabhaji Bharat Kolpe	Kolpewadi	265/1
33	Shri Santu Gopala Kolpe	Kolgaon Thadi	115
34	Shri. Sainath Changdev Bharsakal	Kolpewadi	231/1

Result and Discussion

Soil analysis

The soil samples were analyzed for pH, EC, organic carbon, available nitrogen, available phosphorus and available potassium. The results are presented in table 5.

Table 5. Assessment of soil fertility in the jurisdiction of Karmaveer Shankarrao Kale S.S.K. Ltd., (Kosaka) Sugar Factory

Sr. No.	Name of Farmer	Village Name	Gat No.	pH (1:2.5)	EC (dSm^{-1})	Organic carbon (%)	Available Nitrogen ($kg\ ha^{-1}$)	Available Phosphorus ($kg\ ha^{-1}$)	Available Potassium ($kg\ ha^{-1}$)
1	Shri. Dinkar Bhaginath Kandekar	Kolgaon Mal	189/2	8.11	0.91	0.46	213.24	5.54	425.60
2	Shri. Dharma Ramchandra Kolpe	Kolpewadi	268	8.16	0.37	0.85	100.35	10.81	257.76
3	Shri. Rajendra Raghunath Kadam	Suregaon	346	7.68	1.02	0.27	128.57	3.88	369.60
4	Smt. Latabai Popat Thorat	Laxmanpur	158/1	8.13	0.76	0.41	144.25	30.50	638.40
5	Smt. Chandrakala Karbhari Mhaske	Laxmanpur	181/4	8.08	0.44	0.45	131.71	17.74	548.80
6	Shri. Sanjay Raosaheb Deshmukh	Shahajapur	81	7.65	0.44	0.28	122.30	26.06	571.20
7	Smt. Sumanbai Maruti Ghayal	Laxmanpur	173	7.53	2.18	0.32	131.71	23.29	772.80
8	Shri. Eknath Bandu Thorat	Laxmanpur	158/2	7.94	0.54	0.85	141.12	18.57	806.40
9	Shri. Machindra Changdev Bharsakal	Laxmanpur	170	7.95	0.34	0.38	150.52	24.12	515.20
10	Shri. Bhausaheb Kashinath Thorat	Laxmanpur	169	7.69	0.374	0.76	166.60	26.48	425.60
11	Shri. Maruti Nivrutti Thorat	Laxmanpur	178	7.63	0.38	0.47	181.88	19.46	873.36
12	Smt. Satyabhama Karbhari Chaudhari	Shahajapur	84	7.89	0.16	0.93	147.39	41.59	784.00
13	Shri. Ratanbhai Rambhaji Kolpe	Kolpewadi	258	8.15	0.22	0.66	175.61	38.82	873.36
14	Shri. Laxman Rambhau Garud	Suregaon	364	8.06	0.43	0.32	169.34	27.73	414.40
15	Shri. Babasaheb Changdev Kolpe	Shahajapur	126	7.93	0.39	0.64	159.93	24.95	963.20
16	Smt. Vithabai Gopinat Gawali	Suregaon	350	7.93	0.37	0.97	197.596	14.96	784.00
17	Smt. Lankabai Subhash Gavande	Kolgaon Mal	192	8.11	0.38	0.66	150.52	11.09	817.60
18	Shri. Sayyad Ismail Patel	Shahajpur	68	8.08	0.62	0.24	137.98	19.41	716.80
19	Shri. Baburao Dhamodhar Mhaske	Laxmanpur	181/3	7.98	0.57	0.57	147.39	12.77	257.60
20	Shri. Santosh Vishnu Bidve	Laxmanpur	160	7.61	1.38	0.58	159.9	18.73	896.00
21	Shri. Mohan Bhimaji Thorat	Kolpewadi	76	8.10	0.45	0.40	163.07	36.05	694.40
22	Shri. Rangnath Malahari Kolpe	Kolpewad	289/1	7.72	0.44	0.73	178.75	16.16	1120.00
23	Shri. Rabhaji Bharat Kolpe	Kolpewadi	265/1	7.76	0.91	0.87	125.44	19.41	436.80
24	Shri. Vinayak Bahirunath Kolpe	Kolpewadi	248	7.98	0.37	0.43	134.84	47.14	593.60
25	Shri. Sainath Changdev Bharsakal	Kolpewadi	231/1	7.96	0.37	0.55	128.57	33.10	716.80

Sr. No.	Name of Farmer	Village Name	Gat No.	pH (1:2.5)	EC (dSm^{-1})	Organic carbon (%)	Available Nitrogen ($kg\ ha^{-1}$)	Available Phosphorus ($kg\ ha^{-1}$)	Available Potassium ($kg\ ha^{-1}$)
26	Shri. Dnyaneshwar Khandu Thorat	Laxmanpur	179	7.84	0.85	0.43	128.57	16.48	716.80
27	Sugar Factory Own Land	Shahajpur	106	7.15	0.62	0.99	216.38	39.74	952.00
28	Shri. Prakash Bharunath Kolpe	Shahajapur	96	7.98	0.45	0.91	175.61	5.54	896.00
29	Sugar Factory Own Land	Kolgaon Mal	138	7.82	0.43	0.35	178.75	38.65	638.40
30	Shri. Dadasaheb Sampat Shinde	Kolpewadi	78	8.08	0.64	0.73	144.25	36.05	638.40
31	Smt. Satyabhama Karbhari Chaudhari	Shahajapur	164	8.06	0.35	0.96	156.80	49.91	694.40
32	Shri. Laxman Bhaurao Jadhav	Kolgaon Mal	188	8.12	0.34	0.18	137.98	16.55	784.00
33	Shri. Kachru Narayan Jore	Kolgaonmal	196	7.78	0.49	0.78	122.30	27.73	929.60
34	Shri. Gangaram Trimbak Dhygude	Shahajapur	125	8.03	0.50	0.23	169.93	22.18	840.00
35	Shri. Chaburao Kushaba Mali	Suregaon	211	8.35	0.40	0.28	144.25	8.31	604.80
36	Shri. Bhimabai Ramdas Thakare	Laxmanpur	166	8.05	0.32	0.85	100.35	9.70	235.20
37	Shri. Pramod Vishnunath Dalvi	Shahajapur	69	8.07	0.80	0.47	194.43	13.78	1120.00
38	Shri. Somnath Laxman Thorat	Laxmanpur	162	7.89	0.43	0.96	260.28	38.82	952.0
39	Shri. Kailas Keru Jore	Kolgaonmal	198	7.91	0.84	0.81	141.12	52.68	784.00
40	Shri. Sampat Dada Gavande	Kolgaon Mal	192/1	8.03	0.66	0.60	147.39	38.82	963.20
41	Shri. Vikas Babasaheb Kadam	Kolgaon Mal	211	8.19	0.7	0.51	122.30	13.32	425.60
42	Shri. Abbas Chand Patel	Shahajapur	68/3	8.26	0.18	0.49	116.03	7.48	526.40
43	Sugar Factory Own Land	Suregaon	149	8.01	0.32	0.40	163.07	6.65	582.40
44	Shri. Bhaskar Vishnu Kadam	Suregaon	353	8.24	0.46	0.36	100.35	19.13	784.00
45	Shri. Valmik Ramdas Halnor	Suregaon	189/2	8.12	0.50	0.70	150.52	15.78	627.20
46	Shri. Nathu Haushiram Lonare	Shahajapur	140	7.77	0.67	0.58	94.08	16.91	896.00
47	Shri. Vilas Paraji Handore	Kolgaon Mal	211/3/1/2	8.07	0.33	0.73	159.93	33.27	649.60
48	Shri. Shivaji Ramchandra Kolpe	Kolpewadi	169	8.10	0.59	0.54	125.44	18.57	515.20
49	Shri. Rajendra Nivrutti Kale	Suregaon	350/1	8.42	0.26	0.85	128.57	36.05	448.00
50	Shri. Mahendrakumar Husenchand Soni	Suregaon	126/2	8.16	0.32	0.52	100.35	33.27	403.20
51	Shri. Baburao Balaji Chaudhari	Shahajapur	82	8.26	0.50	0.55	144.25	8.87	873.36
52	Shri. Sopanrao Shankarrao Kolpe	Kolpewadi	278	7.97	0.80	0.45	106.62	41.59	761.60

Sr. No.	Name of Farmer	Village Name	Gat No.	pH (1:2.5)	EC (dSm^{-1})	Organic carbon (%)	Available Nitrogen ($kg\ ha^{-1}$)	Available Phosphorus ($kg\ ha^{-1}$)	Available Potassium ($kg\ ha^{-1}$)
53	Alka Subhash Khemnaar	Shahajapur	94	8.21	0.25	0.22	137.98	14.43	873.60
54	Shri. Goraksha Piraji Kolpe	Kolpewadi	76/1	8.14	0.19	0.52	125.44	9.70	448.00
55	Shri. Dashrath Ramchandra Mokal	Kolagon Mal	209	7.79	038	0.84	128.57	12.77	537.60
56	Shri. Ranjit Tawar	Shahajpur	105	8.08	0.29	0.24	131.71	13.03	358.40
57	Shri. Madhavrao Pandurang Malgunde	Kolgaon Mal	211/2	8.01	0.64	0.42	119.16	41.59	582.40
58	Shri. Dharmaram Ramchandra Kolpe	Kolpewadi	270	8.13	0.52	0.41	112.89	10.81	369.60
59	Shri. Shivaji Ramchandra Kolpe	Kolpewadi	166	8.16	0.67	0.79	153.66	11.29	336.00
60	Shri. Jagannath Pandharinath Kadam	Suregaon	345	8.13	1.59	0.36	119.16	31.50	459.20
61	Shri. Machindra Rambhau Gaikawad	Kolgaon Mal	211/3	8.13	0.44	0.43	128.57	36.05	347.20
62	Shri. Ganpat Raghunath Kadam	Suregaon	350	8.42	0.69	0.56	153.66	24.25	145.60
63	Smt. Chabubai Lahanu Khandekar	Kolpewadi	278/1	8.24	0.39	0.96	147.39	14.37	156.80
64	Shri. Digambar Laxman Jadhav	Kolgaonmal	189/1	8.03	0.32	0.67	128.57	11.36	190.40
65	Sugar Factory Own Land	Suregaon	122	7.95	0.44	0.81	137.98	15.25	112.80
66	Smt. Sakhubai Appa Kolpe	Kolpewadi	283	8.05	0.71	0.29	166.20	12.32	201.60
67	Shri. Dnyeshwar Shankarrao Kolpe	Kolpewadi	282	7.90	1.16	0.44	137.98	9.26	985.60
68	Shri. Dadasaheb Sampat Shinde	Kolpewadi	79	8.42	0.63	0.39	109.76	18.02	212.80
69	Shri. Kisan Pandharinath Nawale	Kolgaonmal	186	7.29	1.06	0.60	147.39	33.27	212.80
70	Shri. Rajendra Popat Kolpe	Kolgaon Thadi	125	8.34	0.90	0.34	134.84	8.88	548.80
71	Sugar Factory Own Land	Suregaon	963	7.81	0.40	0.36	144.25	9.15	784.00
72	Shri. Dattu Keru Jore	Kolgaonmal	199	8.13	0.50	0.87	128.57	13.86	660.80
73	Shri. Kachru Piraji Kolpe	Kolpewadi	77	8.26	0.29	0.71	169.34	12.32	403.20
74	Shri. Kachru Piraji Kolpe	Kolpewadi	80	8.12	0.46	0.19	156.80	13.31	246.40
75	Smt. Latabai Bhausaheb Kolpe	Shahajapur	68	7.96	0.51	0.52	147.39	16.36	291.20
76	Sugar Factory Own Land	Suregaon	122	7.84	0.41	0.96	194.43	21.90	761.60
77	Sheli Mendhi Palan (Karkhana)	Shahajpur	104	7.65	0.57	0.47	232.06	19.68	1052.80
78	Smt. Jijabai Sanjay Kolpe	Kolpewadi	290/1	7.93	0.69	0.43	141.02	15.68	683.20
79	Shri. Bhausaheb Mhata Kolpe	Kolpewadi	198	7.85	0.44	0.53	172.48	18.23	201.60

Sr. No.	Name of Farmer	Village Name	Gat No.	pH (1:2.5)	EC (dSm^{-1})	Organic carbon (%)	Available Nitrogen ($kg\ ha^{-1}$)	Available Phosphorus ($kg\ ha^{-1}$)	Available Potassium ($kg\ ha^{-1}$)
80	Gautam Public School	Suregaon	124	7.97	0.60	0.37	178.75	38.82	851.20
81	Gautam Public School	Suregaon	127	7.86	0.56	0.29	116.03	13.03	896.00
82	Shri. Sakharam Nathu Kolpe	Shahajapur	98	7.42	0.54	0.38	147.39	41.55	526.40
83	Shri. Sonaji Kashinath Kolpe	Kolpewadi	290/2	7.77	0.38	0.34	175.61	38.91	784.00
84	Shri. Sanjay Nathu Kolpe	Kolpewadi	98/1	7.92	0.34	0.47	156.80	16.78	418.16
85	Shri. Sagar Ashok Kolpe	Kolpewadi	96/2	7.90	0.38	0.94	156.80	41.59	750.40
86	Shri. Popat Nathu Kolpe	Shahajapur	98/2	7.94	0.32	0.30	134.84	37.14	811.20
87	Shri. Karbhari Nathu Kolpe	Shahajapur	98	7.99	0.31	0.72	122.30	7.48	638.40
88	Shri. Sakahari Kashinath Kolpe	Kolpewadi	290/2	8.04	0.36	0.37	125.44	27.64	537.60
89	Shri Santu Gopala Kolpe	Kolgaon Thadi	115	8.21	0.30	0.53	112.89	27.73	481.60
90	Sugar Factory Own Land	Suregaon	176	8.16	0.52	0.23	134.84	38.82	560.00
91	Sugar Factory Own Land	Kolgaon Mal	209	8.40	0.63	0.39	153.66	17.74	828.50
92	Shri. Ajitkumar Bansilal Shetti	Suregaon	200	7.92	0.44	0.84	119.16	28.19	179.20
93	Shri. Sakharam Nathu Kolpe	Shahajapur	98	7.96	0.47	0.31	125.44	25.46	168.00
94	Shri. Balasaheb Popat Kolpe	Kolgaon Thadi	173	7.93	0.90	0.75	163.67	24.19	627.20
95	Shri. Chandrakant Sakharam Karvate	Suregaon	351	7.90	1.19	0.35	147.39	11.36	614.65
96	Shri. Govind Santu Kolpe	Kolgaon Thadi	89	7.95	0.50	0.43	112.89	5.26	577.02
97	Shri. Keshav Ghamaji Jeughale	Kolpewadi	274/4	8.00	1.00	0.41	163.07	13.31	577.62
98	Smt. Tanhubai Babanrao Kolpe	Shahajapur	135	8.06	0.52	0.72	169.34	24.12	426.49
99	Shri.Sanjay Yadav Shermale	Suregaon	199	8.04	0.62	0.38	128.57	14.69	715.00
100	Sugar Factory Own Land	Kolpewadi	289/1	8.01	0.89	0.75	134.84	29.00	602.11

Table 6. Six tier system based on available nutrient in soil

Sr. No.	Nutrient rating	Soil available nutrient ($kg\ ha^{-1}$)			Fertilizer recommendation
		N	P	K	
1.	Very low	< 140	< 7	<100	50 % more than recommended dose
2.	Low	141-280	8-14	101-150	25 % more than recommended dose
3.	Medium	281-420	15-21	151-200	As per recommended dose
4.	Moderately high	421-560	22-28	201-250	As per recommended dose
5.	High	561-700	29-35	251-300	25 % less than recommended dose
6.	Very high	> 700	> 35	> 300	50 % less than recommended dose

1. **Soil pH :** Analysis of soil for pH is necessary to categorized as per USDA classification which is given below

	Soil pH range		Rating
1.	Very strongly alkaline	=	> 9.1
2.	Strongly alkaline	=	8.5 to 9.0
3.	Moderately alkaline	=	7.9 to 8.4
4.	Mildely alkaline	=	7.4 to 7.8
5.	Neutral	=	6.6 to 7.3
6.	Slightly acidic	=	6.1 to 6.5
7.	Moderately acidic	=	5.6 to 6.0
8.	Strongly acidic	=	5.1 to 5.5
9.	Extremely acidic	=	< 4.5

2. **Soil EC :** Rating of soil EC (1:2.5) is as under

EC (dSm^{-1})		Rating
< 1	=	Normal
1-2	=	Critical for germination
2-3	=	Critical for growth of salt sensitive crop
> 3	=	Severe injury to crop

3. **Organic carbon :** The rating of organic carbon is given below. Generally, the soil testing laboratories use organic carbon as an index of available N

	% organic carbon		Rating
1.	Very low	=	< 0.20 %
2.	Low	=	0.21-0.40
3.	Medium	=	0.41-0.60
4.	Moderately high	=	0.61-0.80
5.	High	=	0.81-1.0
6.	Very high	=	> 1.0

Irrigation water analysis

The water samples were analyzed for pH, EC, Ca^{++}, Mg^{++}, Na^{+}, K^{+}, CO_3^{--}, HCO_3^{-}, Cl^{-}, SO_4^{--}, COD, BOD, SAR and RSC and the results are presented in Table 6.

Table 7. Assessment of ground water quality in the jurisdiction of Karmaveer Shankarrao Kale S.S.K. Ltd., (Kosaka) Sugar Factory

Sr. No.	Name of Farmer	Village Name	Gat No.	pH	EC (dSm^{-1})	Ca^{++}	Mg^{++}	Na^{+}	K^{+}	CO_3^{--}	HCO_3^{-}	Cl^{-}	SO_4^{--}	COD (ppm)	BOD (ppm)	SAR	RSC (meq L^{-1})	Classification of irrigation water
						----(meq L^{-1})----												
1	Shri. Ajitkumar Bansilal Shetti	Suregaon	200	7.51	2.65	16.20	6.00	1.17	0.02	-	8.60	10.20	8.76	47	6	0.16	-13.6	C_4S_1
2	Shri. Balasaheb Popat Kolpe	Kolgaon Thadi	173	7.31	3.28	17.10	7.30	3.30	0.21	-	5.00	19.60	7.20	42	11	0.42	-19.4	C_4S_1
3	Shri. Rajendra Popat Kolpe	Kolgaon Thadi	125	7.56	2.66	8.50	8.00	3.86	0.05	-	7.60	9.60	8.80	43	6	0.55	-8.9	C_4S_1
4	Shri. Govind Santu Kolpe	Kolgaon Thadi	89	8.75	2.45	9.00	7.7	4.54	0.17	4.00	5.00	11.92	8.90	35	5	0.66	-7.7	C_4S_1
5	Shri. Chandrakant Sakharam Karvate	Suregaon	351	7.60	1.81	9.50	4.20	0.86	0.27	-	1.60	13.00	4.40	57	13	0.16	-12.4	C_3S_1
6	Shri. Somnath Laxman Thorat	Laxmanpur	198	7.52	3.38	17.50	8.20	1.21	0.123	-	5.50	21.46	5.40	45	11	0.14	-20.7	C_4S_1
7	Shri. Vikas Babasaheb Kadam	Kolgaon Mal	68/3	8.16	1.02	4.10	2.20	0.26	0.01	-	4.50	4.2	3.50	41	4	0.08	-1.8	C_3S_1
8	Shri. Vinayak Bahirunath Kolpe	Kolpewadi	248	7.50	1.9	8.80	3.90	1.39	0.01	-	2.70	9.2	5.80	53	7	0.28	-10.0	C_3S_1
9	Shri. Bhaskar Vishnu Kadam	Suregaon	189/2	7.93	1.21	6.20	3.10	0.56	0.02	-	6.50	4.8	4.30	44	8	0.13	-2.8	C_3S_1
10	Smt. Vithabai Gopinat Gawali	Suregaon	350	7.72	1.76	6.92	3.30	0.82	0.01	-	6.70	9.6	3.20	45	6	0.19	-3.52	C_3S_1
11	Shri. Ganpat Raghunath Kadam	Suregaon	350	7.86	2.15	11.30	4.90	0.69	0.01	3.20	5.50	8.40	6.80	36	12	0.11	-7.5	C_3S_1
12	Shri. Rajendra Nivrutti Kale	Suregaon	126/2	7.71	2.48	13.20	6.20	1.30	0.01	-	6.20	11.20	8.30	34	16	0.19	-13.2	C_4S_1
13	Shri. Chaburao Kushaba Mali	Suregaon	166	7.82	2.40	14.50	7.90	2.00	0.01	-	5.80	13.40	9.10	48	8	0.25	-16.6	C_4S_1
14	Shri. Jagannath Pandharinath Kadam	Suregaon	211/3	7.68	2.49	12.30	5.70	1.40	0.02	-	4.20	12.20	8.50	39	4	0.22	-11.6	C_4S_1

Sr. No.	Name of Farmer	Village Name	Gat No.	pH	EC (dSm^{-1})	Ca^{++}	Mg^{++}	Na+	K^{+}	CO_3^{--}	HCO_3^{-}	Cl^{-}	SO_4^{--}	COD (ppm)	BOD (ppm)	SAR	RSC ($meq\ L^{-1}$)	Classification of irrigation water
						----($meq\ L^{-1}$)----												
15	Shri. Laxman Rambhau Garud	Suregaon	364	7.69	2.92	13.80	8.20	2.00	0.01	2.20	7.10	18.40	9.20	34	9	0.25	-14.9	C_4S_1
16	Shri. Rajendra Raghunath Kadam	Suregaon	346	7.72	2.33	12.40	5.30	1.60	0.01	-	8.30	13.20	5.20	41	4	0.25	-9.0	C_4S_1
17	Shri. Valmik Ramdas Halnor	Suregaon	140	7.75	1.55	8.60	3.30	0.34	0.01	-	5.30	9.80	3.40	38	4	0.07	-6.6	C_3S_1
18	Shri. Mahendrakumar Husenchand Soni	Suregaon	82	7.54	0.92	4.60	1.60	0.30	0.01	-	5.10	4.00	2.10	42	9	0.10	-1.1	C_3S_1
19	Shri. Sayyad Ismail Patel	Shahajpur	68	7.75	1.48	6.80	3.70	1.20	0.02	-	6.80	7.30	3.60	51	9	0.26	-3.4	C_3S_1
20	Shri. Babasaheb Changdev Kolpe	Shahajapur	126	7.53	0.79	4.20	1.00	0.39	0.03	-	3.50	2.20	3.80	32	11	0.15	-1.7	C_3S_1
21	Shri. Prakash Bharunath Kolpe	Shahajapur	96	7.36	2.34	8.90	5.30	6.95	0.04	-	7.50	8.70	7.30	48	10	1.23	-6.7	C_4S_1
22	Smt. Satyabhama Karbhari Chaudhari	Shahajapur	84	7.56	1.73	8.30	4.70	1.08	0.03	-	5.30	9.20	4.20	42	7	0.20	-7.1	C_3S_1
23	Smt. Satyabhama Karbhari Chaudhari	Shahajapur	164	7.38	2.76	15.20	7.10	0.56	0.05	-	5.80	11.20	5.70	51	10	0.07	-16.5	C_4S_1
24	Shri. Machindra Rambhau Gaikawad	Kolgaon Mal	211/3	7.40	1.7	11.80	5.40	0.39	0.05	-	6.30	9.80	3.40	38	11	0.06	-10.9	C_3S_1
25	Shri. Kachru Piraji Kolpe	Kolpewadi	77	7.76	2.24	13.20	6.60	0.56	0.02	-	6.70	11.90	5.60	54	9	0.08	-13.1	C_3S_1
26	Shri. Mohan Bhimaji Thorat	Kolpewadi	76	7.39	2.16	14.10	7.90	0.43	0.06	-	7.80	11.20	4.80	43	7	0.05	-14.2	C_3S_1
27	Shri. Shivaji Ramchandra Kolpe	Kolpewadi	350/1	8.02	1.941	11.60	5.30	0.65	0.03	-	7.30	12.30	3.00	47	15	0.10	-9.6	C_3S_1
28	Shri. Sopanrao Shankarrao Kolpe	Kolpewadi	94	7.85	1.45	8.56	3.90	0.60	0.03	-	5.80	6.40	2.90	41	7	0.12	-6.6	C_3S_1
29	Shri. Keshav Ghamaji Jeughale	Kolpewadi	274/4	7.94	1.40	10.30	4.90	0.47	0.01	2.40	5.60	5.40	5.10	33	6	0.08	-7.2	C_3S_1

Sr. No.	Name of Farmer	Village Name	Gat No.	pH	EC (dSm^{-1})	Ca^{++}	Mg^{++}	Na+	K^{+}	CO_3^{--}	HCO_3^{-}	Cl^{-}	SO_4^{--}	COD (ppm)	BOD (ppm)	SAR	RSC ($meq\ L^{-1}$)	Classification of irrigation water
						----($meq\ L^{-1}$)----												
30	Shri. Dharma Ramchandra Kolpe	Kolpewadi	268	8.05	1.38	8.10	3.60	0.43	0.01	2.60	2.10	5.80	4.80	56	12	0.09	-6.9	C_3S_1
31	Shri. Bhausaheb Mhata Kolpe	Kolpewadi	198	7.88	1.48	9.70	4.20	1.34	0.01	-	6.50	4.40	5.60	46	11	0.25	-7.4	C_3S_1
32	Shri. Rabhaji Bharat Kolpe	Kolpewadi	265/1	7.91	2.76	14.70	6.80	0.96	0.03	-	5.80	13.40	7.50	37	5	0.13	-15.7	C_4S_1
33	Shri Santu Gopala Kolpe	Kolgaon Thadi	115	7.54	2.22	15.60	8.20	0.78	0.04	-	5.70	7.90	10.30	42	7	0.09	-18.1	C_3S_1
34	Shri. Sainath Changdev Bharsakal	Kolpewadi	231/1	7.40	2.92	18.20	8.80	0.69	0.05	-	4.60	16.50	9.80	49	9	0.07	-23.4	C_4S_1

Table 8. Quality of irrigation water

Sr. No.	Parameters	Good quality	Medium quality	Unsuitable
1	pH	6.5 – 7.5	7.5 – 8.5	> 8.5
2	EC (dSm^{-1})	< 0.25	0.25 – 2.25	> 2.25
3	CO_3 (meL^{-1})	< 0.1	0.1 – 1.5	> 1.5
4	HCO_3 (meL^{-1})	< 1.5	1.5 – 8	> 8
5	Cl (meL^{-1})	< 4	4 – 10	> 10
6	SO_4 (meL^{-1})	2	2 – 12	> 12
7	SAR	< 10	10 – 26	> 26
8	RSC	< 1.25	1.25 – 2.5	> 2.5

Table 9. Relative salinity tolerance of selected crop plants

High salt tolerant	Medium salt tolerant	Low salt tolerant
Date-palm	Pomegranate	Pear, Grapefruit,
Spinach	Grape, Cucumber	Apple
Barley hay	Lettuce	Orange, Almond
Barley grain	Tomato, Onion	Lemon, Carrot
Sugarbeet	Cabbage, Peas	Peach
Cotton	Cauliflower, Potato	Pineapple, Guava,
Rice	Sweet clover - white & yellow	Radish, Beans
	Wheat, Oat, Soybean	Red clover
	Sunflower, Maize	Field beans
	Castor, Sorghum, Sugarcane	

Table 10. Relative tolerance of selected crop plants to exchangeable sodium

Tolerant	Semi tolerant	Sensitive
Rice	Wheat, Bajra	Chickpea
Dhaincha (*Sesbania species*)	(Pearl millets)	Groundnut
Sugarbeet	Barley, cotton	Urad (black gram)
	Oat, Sugarcane	Maize, Cotton
	Berseem, Mustard	Mung (green gram)

Conclusion

Interpretation of analysis of soil samples

Soil pH

Out of 100 soil samples analyzed, the soil pH ranged from 7.15 to 8.42. The 78% soil are categorized under moderately alkaline followed by 21% soils are mildely alkaline and only one per cent under neutral in reaction.

Soil EC

Out of 100 soil samples analyzed the EC was ranged from 0.16 to 2.18 dSm^{-1}. The 92 per cent soils are normal in electrolyte concentration i.e. EC < 1.0 dSm^{-1} however, 8 per cent soils samples of farmers showed saline soil i.e. EC > 1.0 dSm^{-1} in which these soils are critical for most of the salt sensitive crop like pulse crop for germination.

Organic carbon

Organic carbon content in soils was ranged from 0.18 to 0.99 % and they are categorized as 30% under low to very low, 46% under moderate to moderately high and only 19% soils are found high category.

Available nutrients

All the soil samples analyzed are to categorized as very low to low in status of available N in soil (ranged from 100.35 to 216.38 kg ha^{-1}). In respect of available phosphorus was ranged from 5.26 to 52.68 kg ha^{-1}. Out of 100 samples 30% soil samples are categorized as low to very low 41% soils are moderately high to high status and only 8% soils are found very high status of available P.

Available potassium status in soil ranged from 112.80 to 1120 kg ha^{-1} showed 86% soils are under the category of very high status, however only two soil samples of farmers categorized under low status and 10% are in moderate to moderately high category of soils.

General recommendation (soil)

1. Predominantly soil samples of farmers are moderately alkaline which need to reduce pH < 8.0 by application of organic amendments like PMC compost, chemical amendment like gypsum with FYM as per gypsum requirement by using acidic fertilizer and use of green manuring (*in situ*) crops like dhaincha or sunhemp.

2. The areas about 8 per cent soils of the farmers showed salinity condition (EC ranged from 1.0 to 2.18 dSm^{-1}) which needs to have provision of subsurface drainage / more drainage with a view to condition to remove excess soluble salt from the soil. Addition of organic manures, growing of green manuring crop use of 25% more N fertilizer, scrapping of salts or leaching of soluble salts with using good quality of irrigation water and growing of salt tolerant crops are the measures for reclamation of saline soil.
3. Organic carbon status of 30% soil samples of farmer showed low to very low category which needs to increase in high status by application of recommended application of organic manures (FYM/Compost) to the respective crops, green manuring crops like dhaincha/ sunhemp is necessary to cultivate *in situ* practice for increase in organic carbon in soil.
4. Application of nutrients to the various crop should be based on nutrient status of respective available nutrient in soil, it is necessary to increase 25 to 50% more nitrogen of the recommended dose to respective crop in the surveyed area because all the soil samples are categorized under low to very low status respectively. Available P status of 30% soil samples of farmers are necessary to apply 25% more P fertilizer of the recommended dose to respective crops because of low status of available P in the area.
5. Use of salt tolrent crops like aonala, pomegranate, sapota, fig, guava, ber, jamun.

In respect of available P status of soil samples analyzed showed 90% under high to very high status, which indicating to reduce about 50% of the recommended dose of K fertilizer to the respective crops.

Water analysis

Total 34 water samples are collected and analyzed for different parameter which are presented in table 7. The data revealed that majority of water samples (20) are classified as high salinity with low sodium content (C_3S_1) however 14 water samples are classified as very high salinity with low sodium content (C_4S_1).

General recommendation

1. Majority of water samples analyzed are high to very high saline with low sodium water may be use for reclamation of sodic soil under well drained condition.
2. Provision of subsurface drainage with perforated PVC pipe system is required to drain out excess soluble salt from soil in this area where this irrigation water is used.
3. Good quality of water is essential to blend with present available saline water for irrigating the salt tolerant crop.
4. Use of salt tolerant crops which are mentioned in table 9 and 10.
5. Land configuration system is necessary to adopt for planting of salt tolerant crops like planting seed on middle of ridges (e.g. ridges and furrow, broad bed furrow etc.) and different methods of layout.
6. Use of micro-irrigation systems.

---xxx---

(Co-PI)

Assistant Professor
Dept. of Soil Science & Agril. Chemistry
M. P. K. V., Rahuri

(Co-PI)

Assistant Professor
Dept. of Soil Science & Agril. Chemistry
M. P. K. V., Rahuri

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At Gautamnagar,
Post Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone
02423 261210 to 261215
Fax 02423 261219
Email : kskssk1953@gmail.com

Remedial action taken by Karkhana As per suggestion of M.P.K.V. Rahuri

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

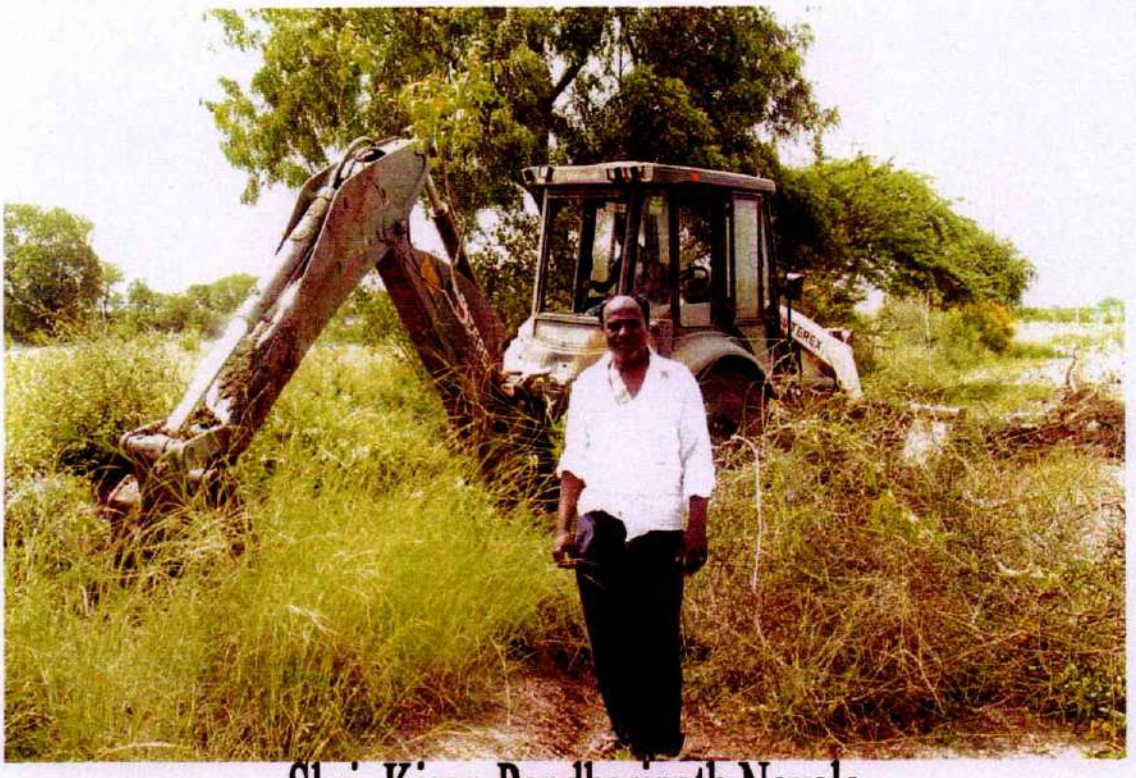
Shri. Rajendra Raghunath Kadam
Village: Suregaon
Gat No. 346

Shri. Sumanbai Maruti Ghayal,
Village :- Laxmanpur, Gut No.173, Area-0.66 Ha.

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri. Jagannath Pandharinath Kadam
Village : Suregaon,Gat No.: 345



Shri. Kisan Pandharinath Navale,
Village :- Kolgaonmal, Gut No. 186, Area-2.2 Ha.

Shri. Chandrakant Ramrao Karwate,
Village :- Suregaon, Gut No. 351, Area-1.6 Ha.

Shri. Keshav Ghamaji Jeughale,,
Village :- Kolpewadi, Gut No. 274/4, Area-0.60 Ha.

Shri. Keshav Ghamaji Jeughale,,
Village :- Kolpewadi, Gut No. 274/4, Area-0.60 Ha.

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Kisan Pandharinath Nawale
Village-Kolgaonmal,Gat no-186

29

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602.
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Kisan Pandharinath Nawale
Village-Kolgaonmal,Gat no-186

30

दि कोपरगाव सहकारी साखर कारखाना लि., गौतमनगर
पो. कोळपेवाडी, ता. कोपरगांव, जि. अहमदनगर

गेट पास

No 006629

दिनांक 5/10/2016

सिक्युरिटी ऑफिसर यांसी,
श्री. शंकरराव डोमारी कोळपे

यांज बरोबर खाली निर्देशित केलेला माल गेटबाहेर जाऊ देणे.

अ. नं.	संदर्भ नंबर	मालाचे वर्णन	कोणत्या कामासाठी पाहिजे त्याचा तपशील	मालाची संख्या
1)		ताग	कारखान्या मार्फत मोफत बियाणे वाटप	40 kg

A.D
नेणाऱ्या इसमाची सही

खाते प्रमुख

N.G.T.
File

दि कोपरगाव सहकारी साखर कारखाना लि., गौतमनगर
पो. कोळपेवाडी, ता. कोपरगांव, जि. अहमदनगर

गेट पास

No 006630

दिनांक 5/10/2016

सिक्युरिटी ऑफिसर यांसी,
श्री. सौ. सुमनबाई मारुती घायाळ

यांज बरोबर खाली निर्देशित केलेला माल गेटबाहेर जाऊ देणे.

अ. नं.	संदर्भ नंबर	मालाचे वर्णन	कोणत्या कामासाठी पाहिजे त्याचा तपशील	मालाची संख्या
1)		मका घाण्या सिड्स L2455	कारखान्या मार्फत मोफत बियाणे वाटप	4x2 L kg

नेणाऱ्या इसमाची सही
सुमनबाई घायाळ

खाते प्रमुख

दि कोपरगाव सहकारी साखर कारखाना लि., गौतमनगर
पो. कोळपेवाडी, ता. कोपरगांव, जि. अहमदनगर

गेट पास

No 006627

दिनांक 5/10/2016

सिक्युरिटी ऑफिसर यांसी,
श्री. किसन पंढरीनाथ नवले

यांज बरोबर खाली निर्देशित केलेला माल गेटबाहेर जाऊ देणे.

अ. नं.	संदर्भ नंबर	मालाचे वर्णन	कोणत्या कामासाठी पाहिजे त्याचा तपशील	मालाची संख्या
1)		मका घाण्या सिड्स L2455	कारखान्या मार्फत मोफत बियाणे पुरवठा	4 kg

नेणाऱ्या इसमाची सही
किसन पंढरीनाथ नवले

खाते प्रमुख

31

दि कोपरगाव सहकारी साखर कारखाना लि., गौतमनगर
पो. कोळपेवाडी, ता. कोपरगाव, जि. अहमदनगर

गेट पास

N° 006682

दिनांक 5 / 8 / 2096

सिक्युरिटी ऑफिसर यांसी,
श्री. राजेंद्र रघुनाथ कदम
यांच बरोबर खाली निर्देशित केलेला माल गेटबाहेर जाऊ देणे.

अ. नं.	संदर्भ नंबर	मालाचे वर्णन	कोणत्या कामासाठी पाहिजे त्याचा तपशील	मालाची संख्या
1)		मका धान्या सिडस 8244	कारखान्या मार्फत मोफत वितरण	2 X 8 = 16 kg
2)		तागा	वाटप	80 kg

R.R.Kadam
नेणाऱ्या इसमाची सही — खाते प्रमुख
राजेंद्र रघुनाथ कदम

दि कोपरगाव सहकारी साखर कारखाना लि., गौतमनगर
पो. कोळपेवाडी, ता. कोपरगाव, जि. अहमदनगर

गेट पास

N° 006636

दिनांक 5 / 8 / 2096

सिक्युरिटी ऑफिसर यांसी,
श्री. केशव धमाजी जेऊघाले
यांच बरोबर खाली निर्देशित केलेला माल गेटबाहेर जाऊ देणे.

अ. नं.	संदर्भ नंबर	मालाचे वर्णन	कोणत्या कामासाठी पाहिजे त्याचा तपशील	मालाची संख्या
1)		मका धान्या सीडस 8244	कारखान्या मार्फत मोफत वितरण पुरवठा	8 X 2 = 16 kg

नेणाऱ्या इसमाची सही — खाते प्रमुख
केशवराव धमाजी जेऊघाले

दि कोपरगाव सहकारी साखर कारखाना लि., गौतमनगर
पो. कोळपेवाडी, ता. कोपरगाव, जि. अहमदनगर

गेट पास

N° 006682

दिनांक 5 / 8 / 2096

सिक्युरिटी ऑफिसर यांसी,
श्री. राजेंद्र रघुनाथ कदम
यांच बरोबर खाली निर्देशित केलेला माल गेटबाहेर जाऊ देणे.

अ. नं.	संदर्भ नंबर	मालाचे वर्णन	कोणत्या कामासाठी पाहिजे त्याचा तपशील	मालाची संख्या
1)		मका धान्या सिडस 8244	कारखान्या मार्फत मोफत वितरण	2 X 8 = 16 kg
2)		तागा	वाटप	80 kg

R.R.Kadam
नेणाऱ्या इसमाची सही — खाते प्रमुख
राजेंद्र रघुनाथ कदम

दि कोपरगाव सहकारी साखर कारखाना लि., गौतमनगर
पो. कोळपेवाडी, ता. कोपरगाव, जि. अहमदनगर

गेट पास

N° 006636

दिनांक 5 / 8 / 2096

सिक्युरिटी ऑफिसर यांसी,
श्री. केशव धमाजी जेऊघाले
यांच बरोबर खाली निर्देशित केलेला माल गेटबाहेर जाऊ देणे.

अ. नं.	संदर्भ नंबर	मालाचे वर्णन	कोणत्या कामासाठी पाहिजे त्याचा तपशील	मालाची संख्या
1)		मका धान्या सीडस 8244	कारखान्या मार्फत मोफत वितरण पुरवठा	8 X 2 = 16 kg

नेणाऱ्या इसमाची सही — खाते प्रमुख
केशवराव धमाजी जेऊघाले

दि कोपरगाव सहकारी साखर कारखाना लि., गौतमनगर
पो. कोळपेवाडी, ता. कोपरगांव, जि. अहमदनगर

गेट पास

No 006629

दिनांक 5/11/2096

सिक्युरिटी ऑफिसर यांसी,
श्री. शंकरराव डारमारी कोळपे

यांज बरोबर खाली निर्देशित केलेला माल गेटबाहेर जाऊ देणे.

अ. नं.	संदर्भ नंबर	मालाचे वर्णन	कोणत्या कामासाठी पाहिजे त्याचा तपशील	मालाची संख्या
1)		ताग	कारखान्या मार्फत मोफत वितरण	40 kg

A.D
नेणाऱ्या इसमाची सही
खाते प्रमुख

दि कोपरगाव सहकारी साखर कारखाना लि., गौतमनगर
पो. कोळपेवाडी, ता. कोपरगांव, जि. अहमदनगर

गेट पास

No 006630

दिनांक 5/11/2096

सिक्युरिटी ऑफिसर यांसी,
श्री. सौ. सुमनबाई मारुती घायाळ

यांज बरोबर खाली निर्देशित केलेला माल गेटबाहेर जाऊ देणे.

अ. नं.	संदर्भ नंबर	मालाचे वर्णन	कोणत्या कामासाठी पाहिजे त्याचा तपशील	मालाची संख्या
1)		मका घाण्या सिड्स 12455	कारखान्या मार्फत मोफत वितरण	4x2 L kg

नेणाऱ्या इसमाची सही
सुमनबाई घायाळ
खाते प्रमुख

दि कोपरगाव सहकारी साखर कारखाना लि., गौतमनगर
पो. कोळपेवाडी, ता. कोपरगांव, जि. अहमदनगर

गेट पास

No 006627

दिनांक 5/11/2096

सिक्युरिटी ऑफिसर यांसी,
श्री. किसन पंढरीनाथ नवले

यांज बरोबर खाली निर्देशित केलेला माल गेटबाहेर जाऊ देणे.

अ. नं.	संदर्भ नंबर	मालाचे वर्णन	कोणत्या कामासाठी पाहिजे त्याचा तपशील	मालाची संख्या
1)		मका घाण्या सिड्स 12455	कारखाना मार्फत मोफत वितरण	4 kg

नेणाऱ्या इसमाची सही
किसनपंढीनाथ नवले
खाते प्रमुख

KARMAVEER SHANKARRAO KALE

SAHAKARI SAKHAR KARKHANA LTD,

GAUTAMNAGAR ,POST-KOLPEWADI ,TAL- KOPARGAON

DIST.- AHMEDNAGAR

COMPLIANCE REPORT REGARDING

SOIL RECLAMATION WORK

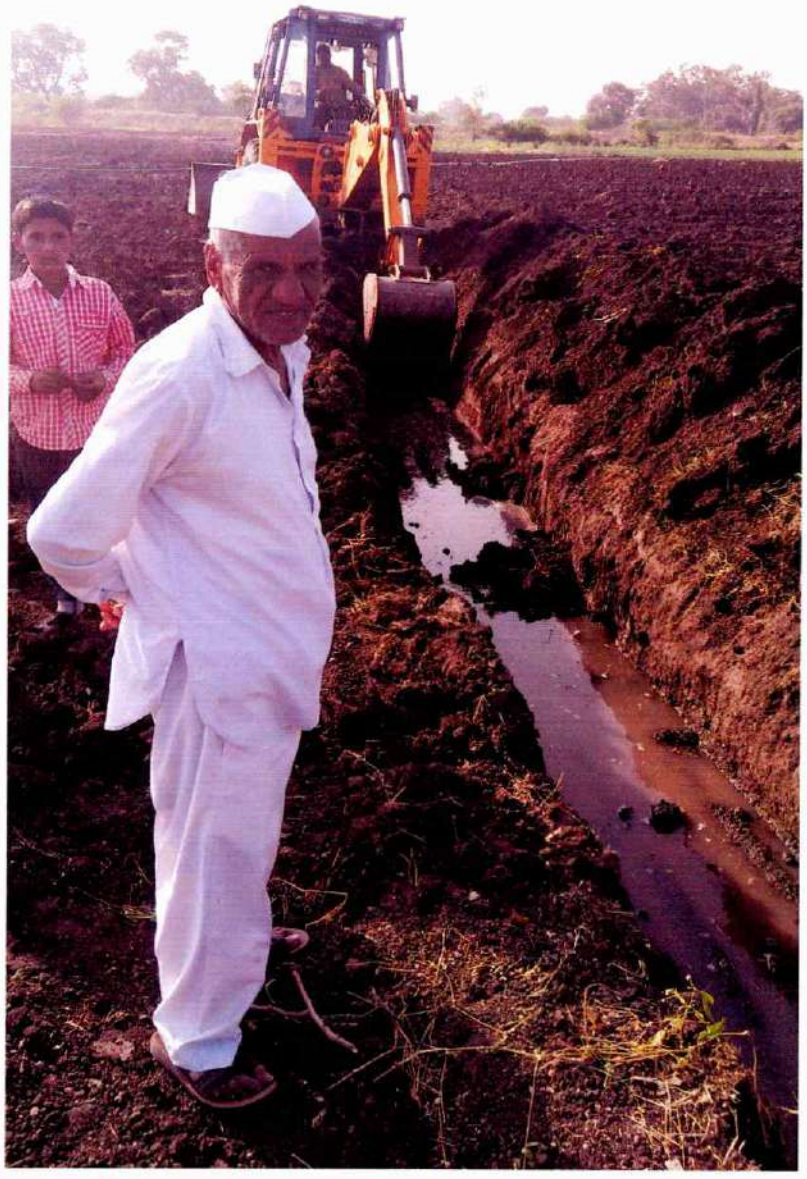
कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Chandrakant Ramrao Karvate
Village-Suregaon .Gat no-351

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com



Shri.Santosh Vishnu Dube
Village-Laxmanpur .Gat no-160

369

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड

KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

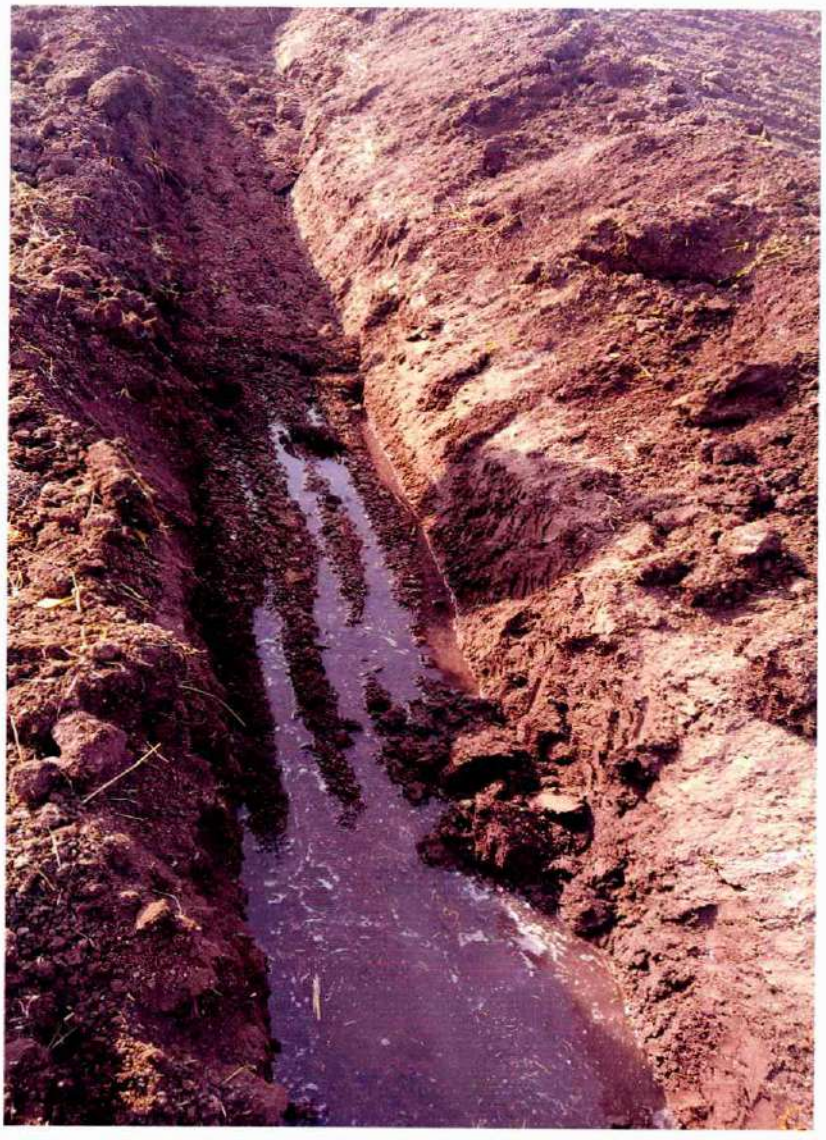
At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Keshav ghamaji Jeughale

Village-Kolpewadi,Gat no-274/4

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com



Shri-Dnyaneshwar Shankarao Kolpe

Village-Kolpewadi,Gat no-282

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Sau.Sumanbai Maruti Ghayal
Village-Laxmanpur ,Gat no-173

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Jagannath Pandharinath Kadam

Village-Suregaon ,Gat no-345

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

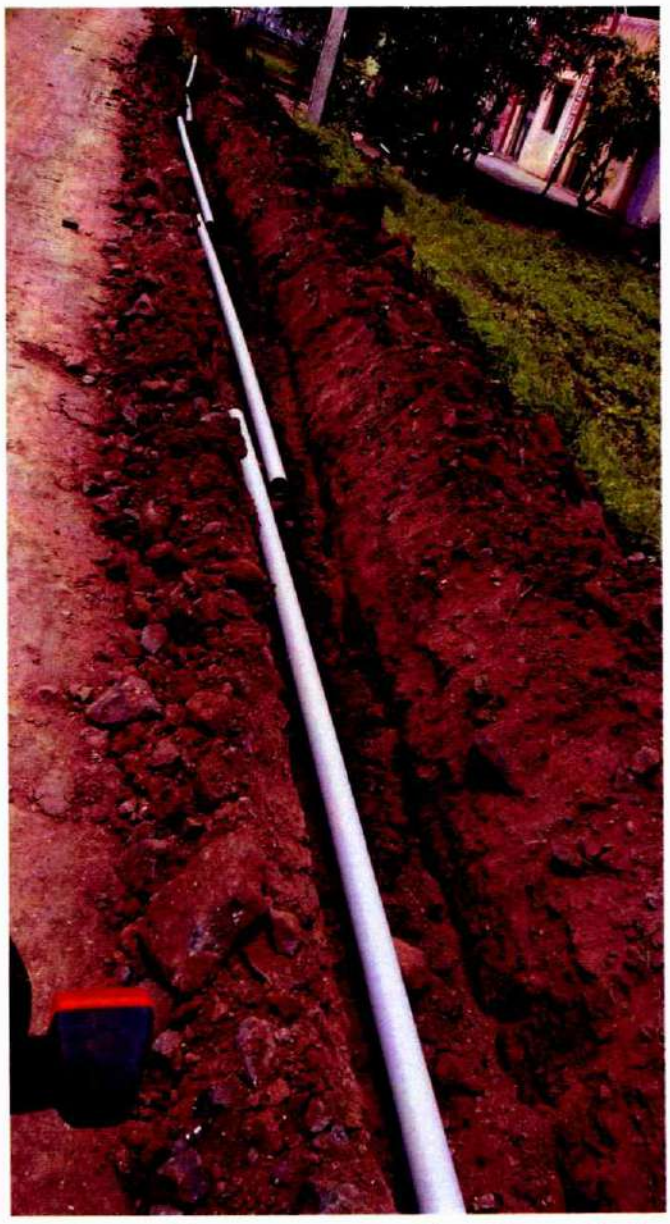
At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Rajendra Raghunath Kadam
Village-Suregon,Gat no-346

40

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

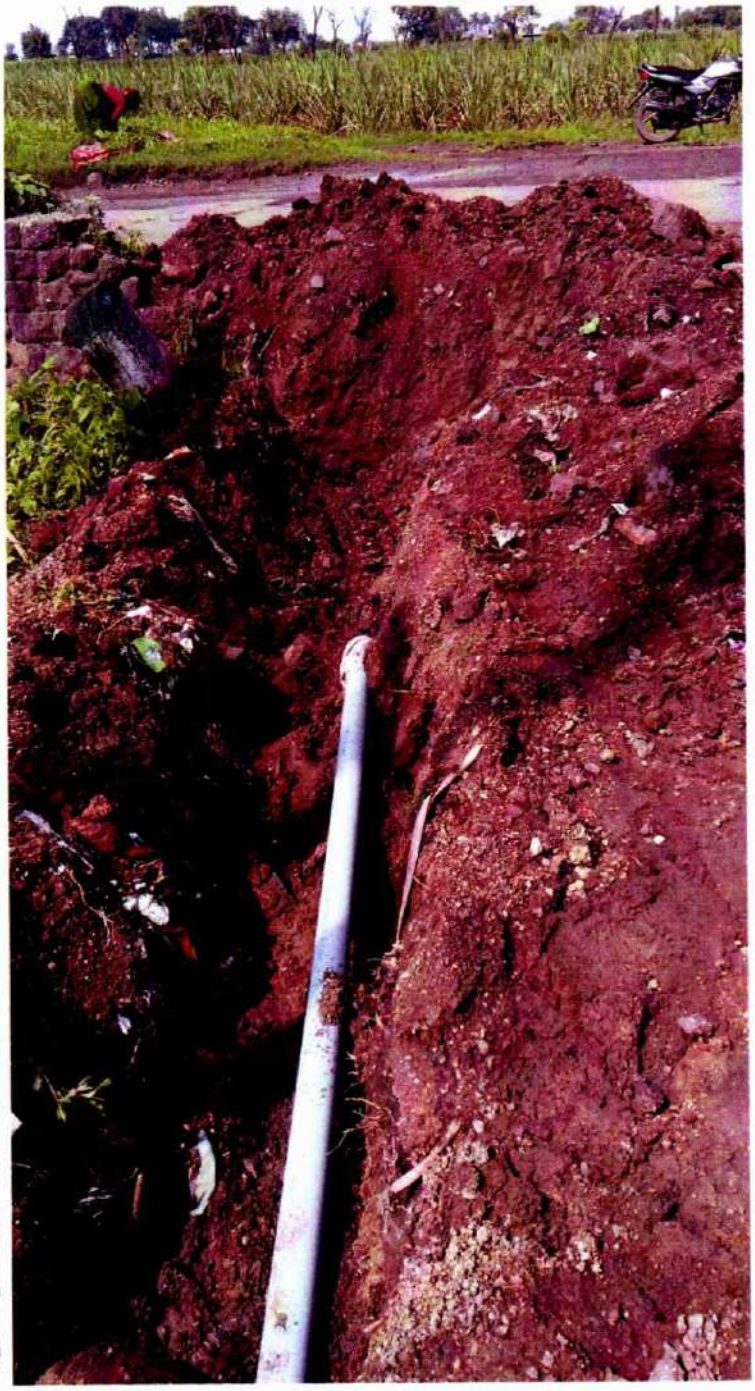
At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com



Pipeline work for blending of fresh water

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

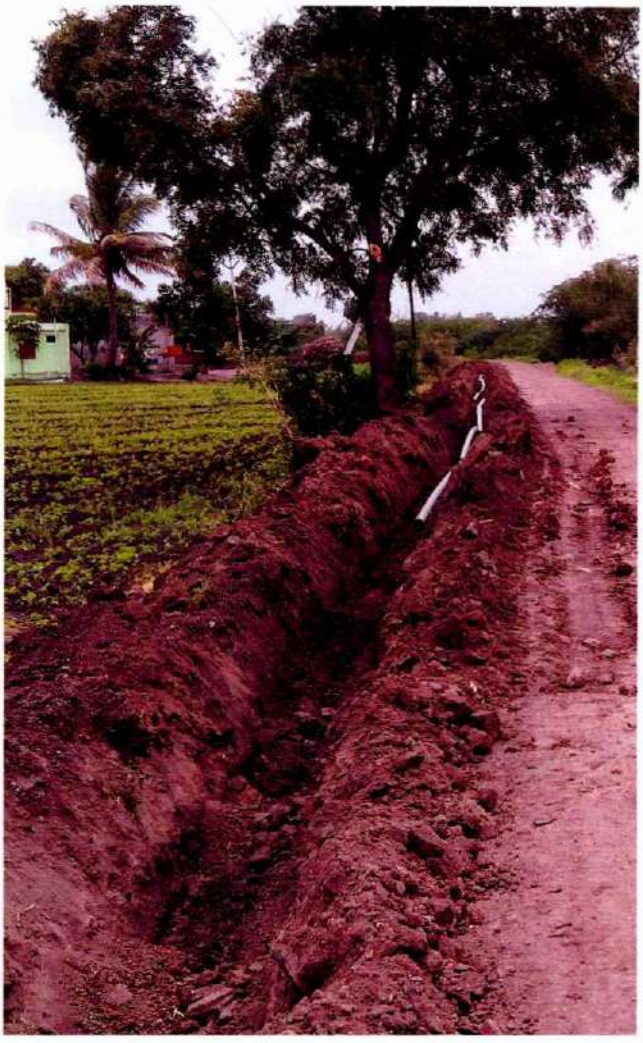
At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

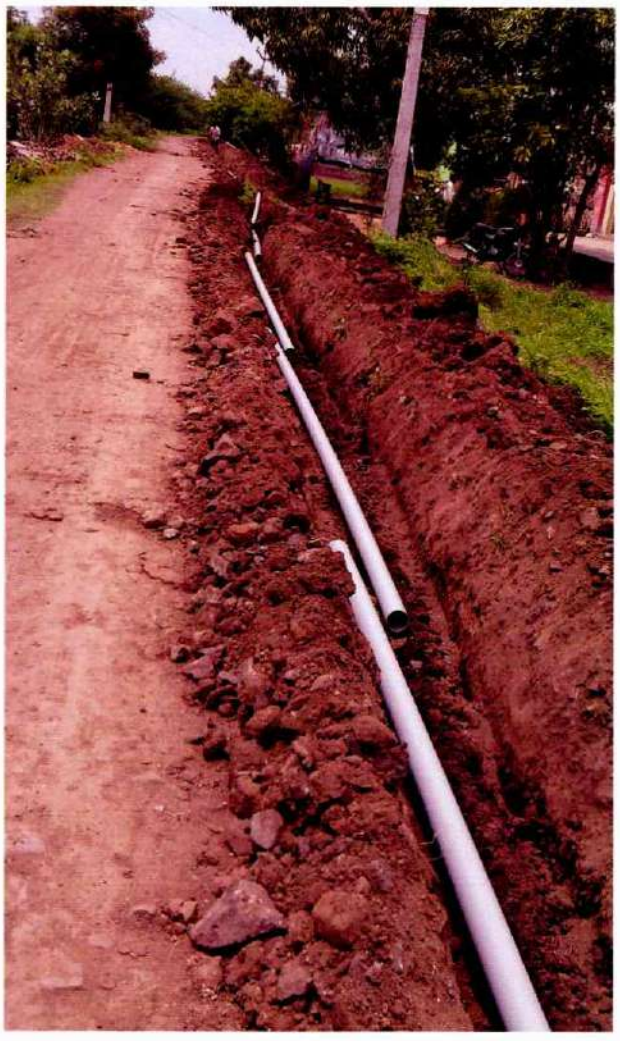


Pipeline work for blending of fresh water.

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com





INSTALLATION OF PIPELINE FOR IRRIGATION OF FARMERS LAND

KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LTD,

GAUTAMNAGAR ,POST-KOLPEWADI ,TAL- KOPARGAON

DIST.- AHMEDNAGAR

COMPLIANCE REPORT REGARDING GROUND WATER RESTORATION WORK

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

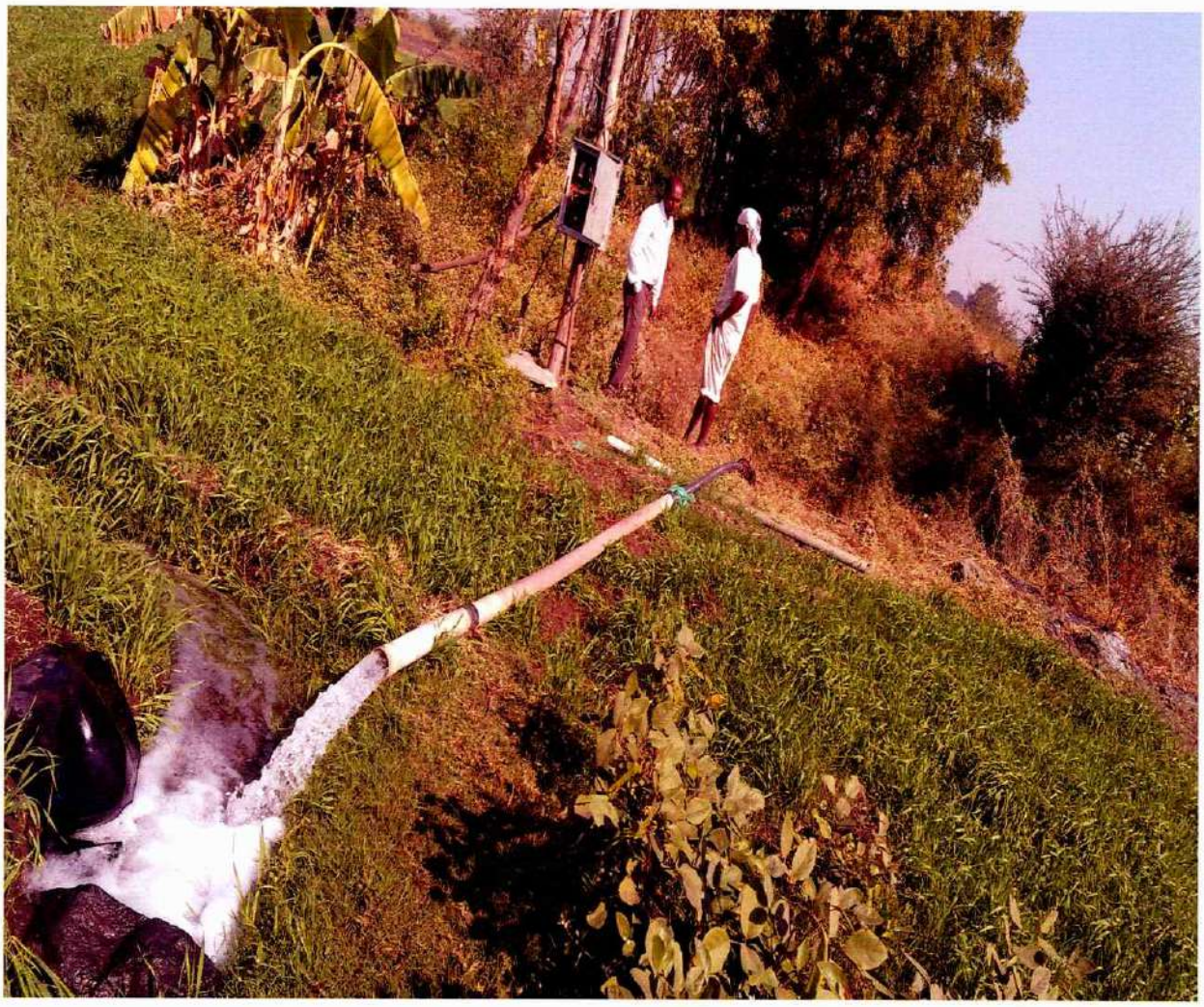
At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri. Rajendra Raghunath Kadam

Village-Suregaon ,gat no-346

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com



Shri. Jagannath Pandharinath Kadam
Village-Suregaon ,Gat no-211/3

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

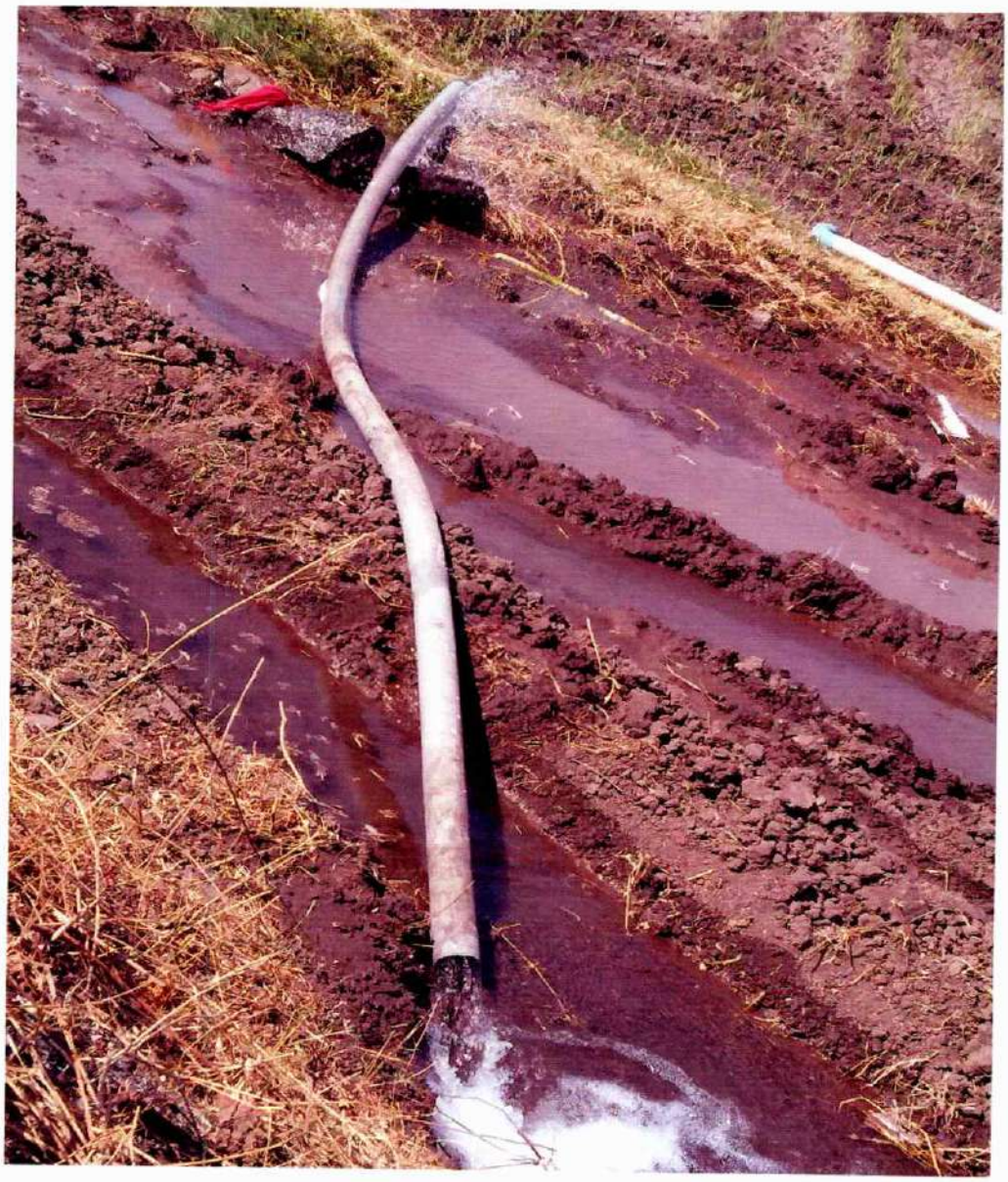
At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri. Rajendra Nivrutti Kale

Village-Suregaon ,Gat no-126/2

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com



Shri. Somnath Laxman Thorat
Village-Laxmanpur ,gat no-196

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri. Govind Santu Kolpe

Village-Kolgaon thadi ,Gat no-89

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri. Rajendra popat kolpe
Village-Kolgaon thadi ,Gat no-125

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Balasaheb Popat Kolpe

Village-Kolgaon thadi ,Gat no-173

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602.
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Ajitkumar bansilal shetti
Village-Suregaon ,Gat no-200

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri. Chhaburao Kushaba Mali
Village-Suregaon ,Gat no-166

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602.
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Laxman Rambhau Garud
Village-Suregaon ,gat no-364

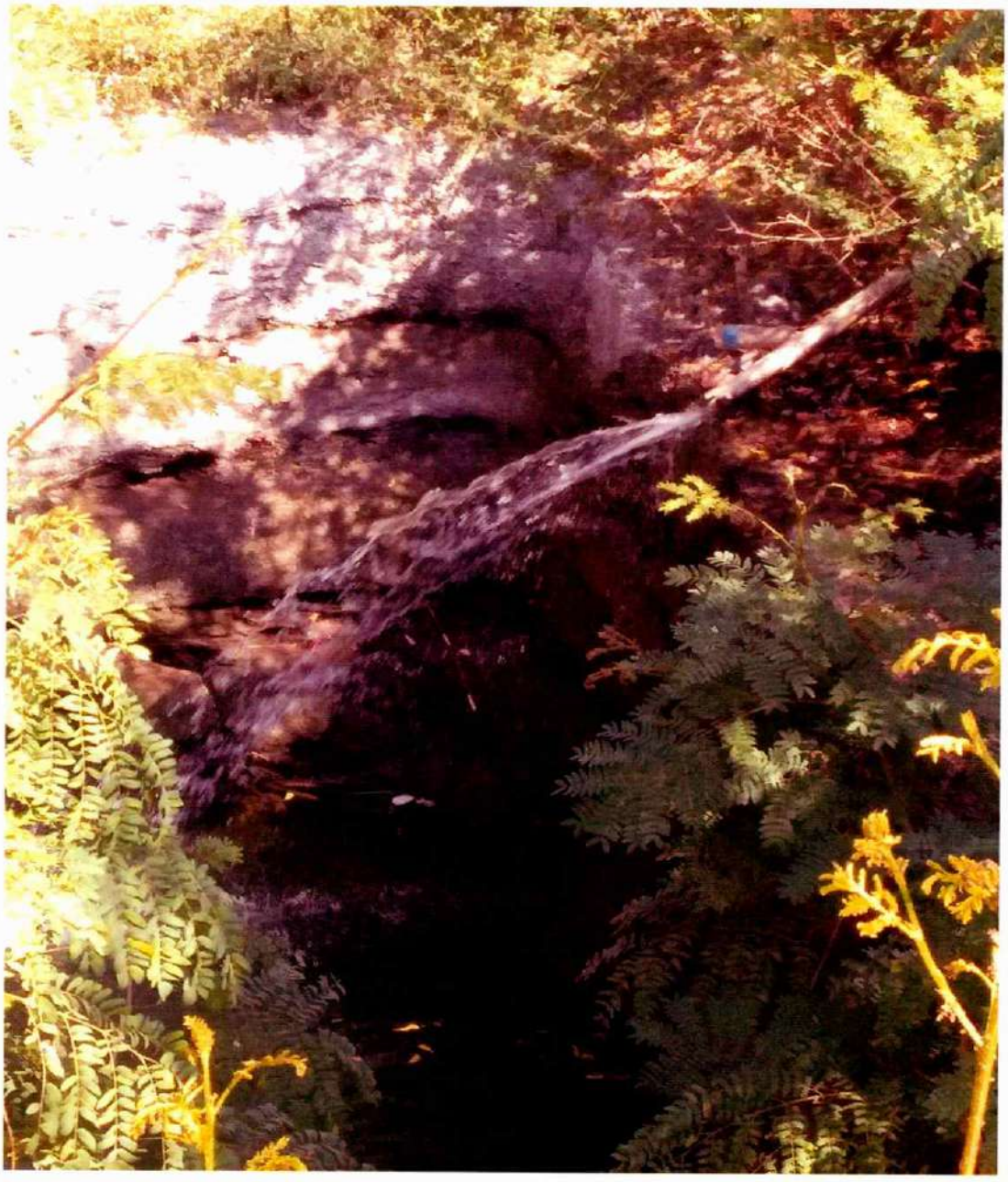
कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri. Prakash Bharunath Kolpe
Village-Shahajapur ,Gat no-96

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

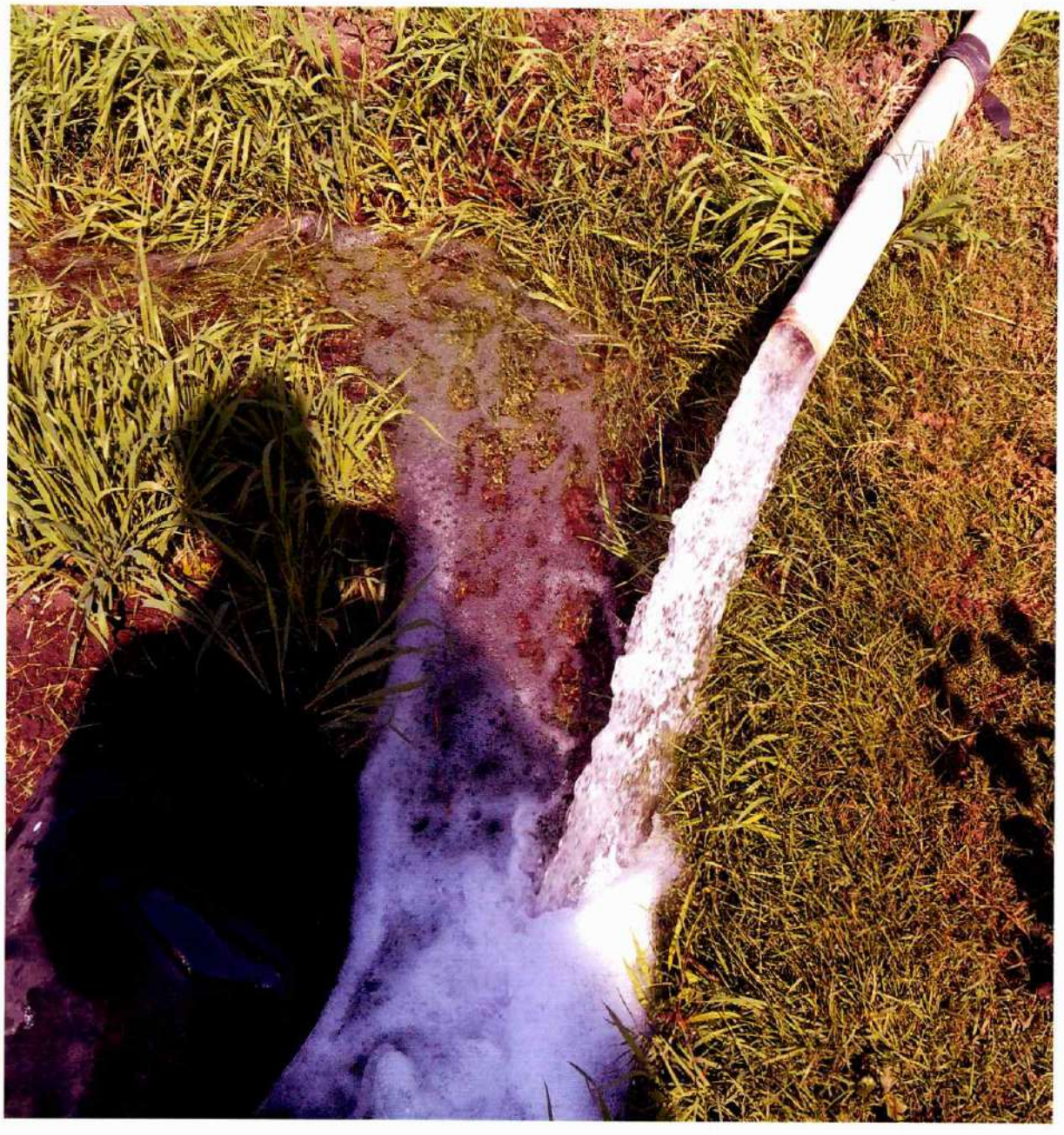
At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com



Smt.Satyabhama karbhari Chaudhari
Village-Suregaon,Gat no-164

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com



Shri.Ramdas bhagat kolpe
Village-Kolpewadi ,Gat no-265/1

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Sainath Changdev Bharsakal
Village-Kolgaonmal,Gat no-231/1

KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LTD,

GAUTAMNAGAR ,POST-KOLPEWADI ,TAL- KOPARGAON

DIST.- AHMEDNAGAR

CROP PATTERN IN THE FIELD OF FARMER AFTER IMPLEMETATION OF REMEDIAL MEASURES

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602.
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Balasaheb Popat Kolpe

Village-Kolgaon thadi ,Gat no-173

CROP- Maize

58

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602.
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Laxman Rambhau Garud
Village-Suregaon ,gat no-364
CROP- Wheat

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri. Prakash Bharunath Kolpe
Village-Shahajapur ,Gat no-96
CROP-Onion,Wheat

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Smt.Satyabhama karbhari Chaudhari

Village-Suregaon,Gat no-164

CROP- Wheat

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Ramdas bhagat kolpe
Village-Kolpewadi ,Gat no-265/1
CROP- Maize,Wheat

62

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri. Rajendra Nivrutti Kale

Village-Suregaon ,Gat no-126/2

CROP- Sugar cane

63

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri. Somnath Laxman Thorat
Village-Laxmanpur ,gat no-198
Crop- Onion,Wheat

400

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड

KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri. Govind Santu Kolpe

Village-Kolgaon thadi ,Gat no-89

Crop- Wheat

401

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड

KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Kisan Pandharinath Nawale

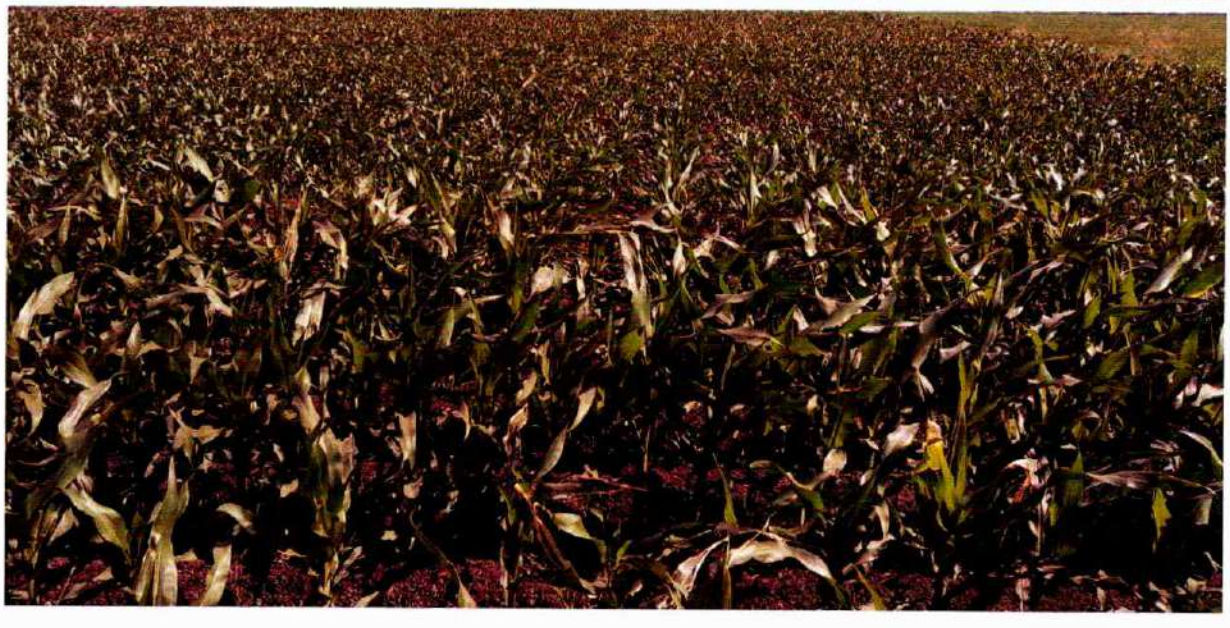
Village-Kolgaonmal,Gat no-186

CROP-Maize,Wheat

66

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com



Sau.Sumanbai Maruti Ghayal

Village-Laxmanpur ,Gat no-173

CROP-Maize

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Chandrakant Ramrao Karvate

Village-Suregaon .Gat no-351

CROP-Onion

404

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड

KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

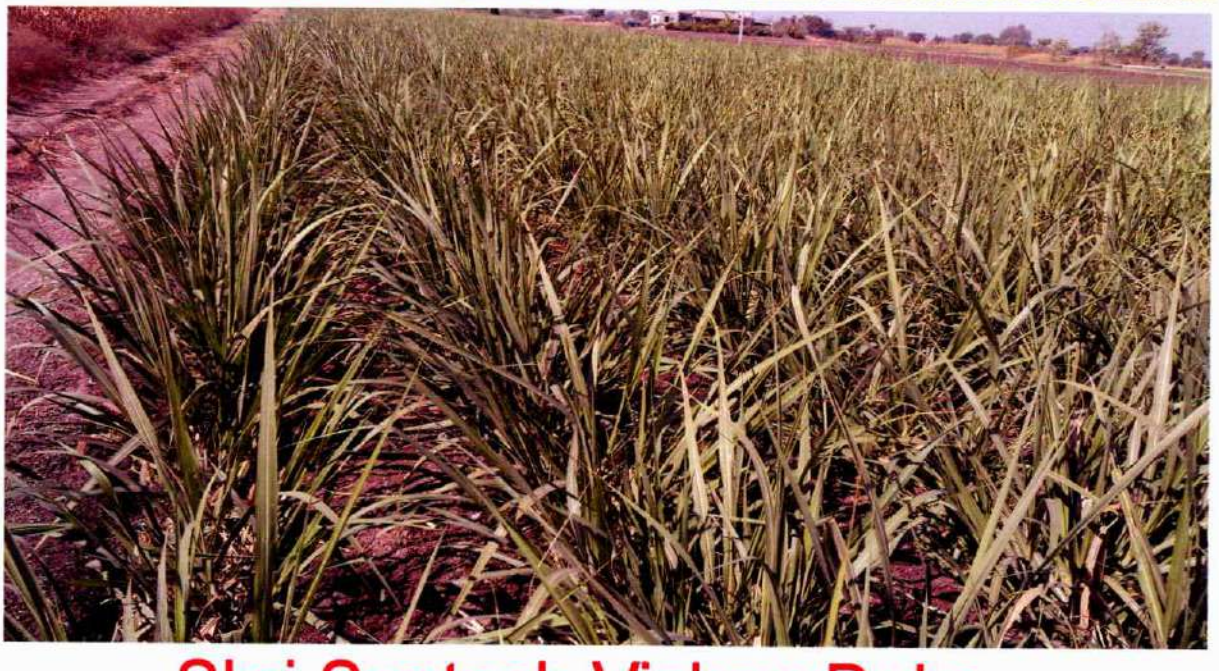
At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Keshav ghamaji Jeughale
Village-Kolpewadi,Gat no-274/4
CROP- Onion,Wheat

69

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com



Shri.Santosh Vishnu Dube
Village-Laxmanpur .Gat no-160
CROP- Sugar Cane

406

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड

KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri.Ajitkumar bansilal Shetti

Village-Suregaon ,Gat no-200

CROP-Wheat

71

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

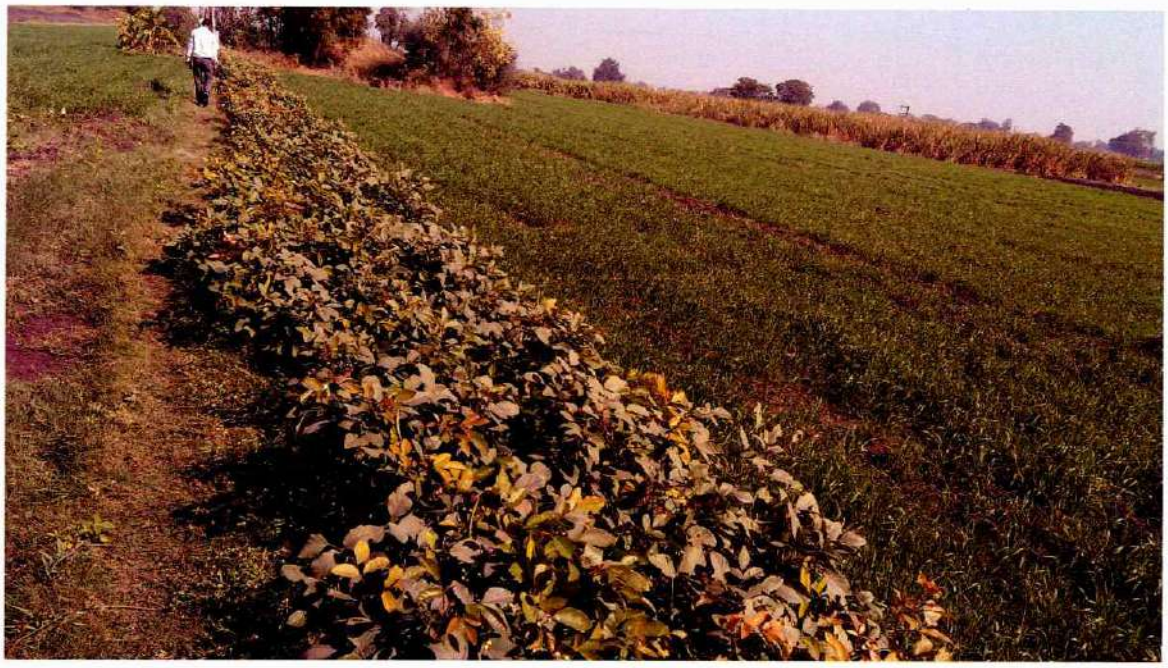
Shri.Sainath Changdev Bharsakal
Village-Kolgaonmal,Gat no-231/1
CROP-Wheat,Maize

408

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड

KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com



Shri. Jagannath Pandharinath Kadam

Village-Suregaon ,Gat no-211/3

CROP-Wheat

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri. Rajendra raghunath kadam
Village-Suregaon ,gat no-346
CROP-Sugar Cane,Wheat

कर्मवीर शंकरराव काळे सहकारी साखर कारखाना लिमिटेड
KARMAVEER SHANKARRAO KALE SAHAKARI SAKHAR KARKHANA LIMITED

At : Gautamnagar,
Post : Kolpewadi - 423 602,
Tal. Kopargaon,
Dist. Ahmednagar,
Maharashtra State (India)
Telephone :
02423 261210 to 261215
Fax : 02423 261219
Email : kskssk1953@gmail.com

Shri. Chhaburao Kushaba Mali
Village-Suregaon ,Gat no-166
CROP-Sugar Cane

75