

**GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE  
(IA DIVISION-INDUSTRY-2 SECTOR)**

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**Dated: 01.08.2023**

**Meeting ID: IA/IND2/13534/26/07/2023  
MINUTES OF MEETING OF THE EXPERT APPRAISAL COMMITTEE  
(INDUSTRY-2 SECTOR PROJECTS)  
HELD ON 26<sup>th</sup> July, 2023**

**Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003  
through Video Conferencing (VC)**

**(i) Opening Remarks by the Chairman:** The Chairman made hearty welcome to the Committee members and appreciated the efforts of the Committee. After opening remarks, the Chairman opened the EAC meeting for further deliberations.

**(ii) Confirmation of minutes:** The EAC, having taken note that final minutes were issued after incorporating comments received from the EAC members on the minutes of its Meeting (ID: IA/IND2/13528/17/07/2023) held on 17<sup>th</sup> July, 2023 conducted through Video Conferencing (VC), confirmed the same. After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

**(iii)** Details of the proposals considered during the meeting conducted through Video Conferencing (VC), deliberations made and the recommendations of the Committee are explained in the respective agenda items as under: -

**26<sup>th</sup> July, 2023 (Wednesday)**

**Agenda No. 01**

**Proposed 60 KLD Grain Based Ethanol plant along with 2.0 MW Cogeneration Power Plant at Survey no. 333, Koyba Halvad Road, Koyba, Tehsil- Halvad, Dist.- Morbi, Gujarat by M/s. Prism Advance Technology Enterprise Private Limited – Re-consideration of Environmental Clearance.**

**[IA/GJ/IND2/ 418810/2023, IA-J-11011/452/2022-IA-II(I)]**

The proposal was earlier considered by the EAC (Ind-2) meeting held during 08<sup>th</sup> April, 2023 wherein EAC deferred the proposal and desired certain requisite information/inputs. Information desired by the EAC and responses submitted by the project proponent is as under:

<b>S. No.</b>	<b>Observation</b>	<b>Reply</b>
1	The committee noted that there is a forest land near to the project site and no information has been proved in EMP/presentation. The committee suggested that clarification from DFO shall be obtained authenticating the distance of forest land from the project site.	PP has submitted a copy of letter no. C/Land/T-10/310/2023-24 dated 04.07.2023 issued by Deputy Conservator of Forests, Morbi Forest Division regarding distance between forest land from the project site. As per letter dated 04.07.2023, the distance of forest from project site are as follows: 1. Sukhpur Forest Area-305 mtr. 2. Halvad Forest Area-1000 mtr.
2	EAC suggested PP to revise species of the greenbelt such that only indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native	PP has submitted revised Green Belt Plan for Sapling of native species of 4-6 feet height to be planted.

	species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop atleast 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. Accordingly, PP should submit revised greenbelt plan.	
3	PP shall submit an undertaking that no ground water recharge shall be permitted within the premises.	PP has informed that, no Rain Water recharging will be constructed at the project site. They will store the rain water in rainy season in 15000 m <sup>3</sup> water storage tank. This collected water will be utilized in the process.

The Project Proponent and the accredited Consultant M/s. Envisolve LLP (NABET certificate no. NABET/EIA/2124/IA0088 and validity 19/08/2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for 60 KLPD Grain based Ethanol Plant & 2 MW Co-generation power plant (Rice Husk) located at Survey no. 333, Koyba Halvad Road, Koyba, Tehsil- Halvad, Dist.- Morbi, Gujarat by M/s. Prism Advance Technology Enterprise Private Limited.

As per the MoEF&CC Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, a special provision in the EIA Notification, 2006-(Schedule 5 (ga), Category B2) is made, wherein for all applications made for Grain based distilleries with Zero Liquid Discharge producing ethanol; solely to be used for Ethanol Blended Petrol Programme of the Government of India shall be considered under B2 Category and appraised at Central Level by Expert Appraisal Committee (EAC) with condition that the project proponent shall file a notarized affidavit that ethanol produced from proposed project shall be used completely for EBP Programme.

**The details of products and capacity as under:**

S.	Name of unit	Name of the Production
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<b>No</b>		<b>product/by-product</b>	<b>capacity</b>
1.	Distillery (Raw material-Grains such as rice and maize)	Ethanol	60 KLPD
2.	Co-generation powerplant	Power	2 MW
3.	DWGS dryer	DDGS	30 TPD
4..	Fermentation unit	Carbon Di-Oxide	50 TPD

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16<sup>th</sup> June, 2021. It was informed that there is no litigation is pending against the project.

Total land area required is 3.98 hectares. Greenbelt will be developed in total area of 1.35 hectares i.e., 33.86% of total project area. The estimated project cost is Rs. 98 Crores. Capital cost of EMP would be Rs. 13.13 Crores and recurring cost for EMP would be Rs. 1.78 Crores per annum. Industry proposes to allocate Rs. 1.96 Crores towards Extended EMP (Corporate Environment Responsibility). Total Employment will 110 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. No Reserve forests/protected forests, No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. from project site. No Eco-sensitive around the boundary. NBWL application has been submitted dated NA (if applicable). Conservation plan for schedule I species- Not Applicable. Water bodies: Khari Dam is at a distance of 1.17 Km in East direction and Narmada Canal is at distance of 1.9 Km in North direction. Khari Dam is at a distance of 1.17 Km for which, PP has obtained the NOC issued vide letter No. JMN-1/VASHI/28102022/2022 dated 28.10.2022 from Office of the Collector & District Magistrate, Morbi.

AAQ modelling study for point source emissions indicates that resultant concentrations considering the maximum incremental GLCs after the proposed project would be 75.50  $\mu\text{g}/\text{m}^3$ , 25.52, 8.027  $\mu\text{g}/\text{m}^3$  and 15.80  $\mu\text{g}/\text{m}^3$  with respect to  $\text{PM}_{10}$ ,  $\text{PM}_{2.5}$   $\text{SO}_2$  and  $\text{NO}_x$ . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be 240 m<sup>3</sup>/day, which will be met from Narmada Canal. Application has been submitted to Narmada Water Resources, Water Supply & Kalpsar Department dated 21.09.2022. Effluent (Condensate/spent lees/blowdown etc.) of 390 m<sup>3</sup>/day quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity 500 KLPD with RO as tertiary treatment. Raw stillage (360 KLPD: quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. STP of capacity 10 KLPD will be installed to treat sewage generated from factory premises. The plant will be based on Zero Liquid discharge system and no effluent/treated water will be discharged outside the factory premises.

Power requirement will be 2 MW and will be met from proposed 2 MW cogeneration power plant. 25 TPH Rice husk & Bagasse fired boiler will be installed. Bag house with 45 m high stack will be installed for controlling the particulate matter emissions within the statutory limit of 50 mg/Nm<sup>3</sup> for the proposed 25 TPH boiler. 1 DG set of 1000 kVA will be used as standby during power failure and stack height (14 m) will be provided as per CPCB norms to the proposed DG set.

#### **Details of Process emissions generation and its management:**

- APCE Bag house with 45 m meters high stack will be installed for controlling the particulate matter emissions.
- Online Continuous Emission Monitoring System will be installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> (50 TPD) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.

#### **Details of solid waste/Hazardous waste generation and its management:**

- DDGS (Distilled Dried Grains Stillage) (30 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (40 TPA) will be used for brick manufacturing supplied to brick manufacturers/ given to farmers to be used as manure.

- Used oil (0.5 Kiloliters per annum) will be sold to authorized recyclers.
- CPU sludge (20 kg) and STP Sludge (5 kg) will be used as manure.

As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed capacity of 60 KLPD will be used for manufacturing fuel ethanol only.

Total land of 3.98 Hectares is under possession of the company and land use conversion has been completed vide Order No. 926/28 105103512022 dated-24.08.2022. EAC found the information satisfactory.

**Capital cost and recurring cost of EMP are given below:**

<b>S.N</b>	<b>DESCRIPTION</b>	<b>CAPITAL COST INR CRORES</b>	<b>RECURRING COST INR CRORES/ANNUM</b>
1.	Air emission control systems (Bag filter, dust suppression, etc.)	2.5	0.1
2.	MEE	4	1
3.	Condensate Policing unit	1.77	0.2
4.	Environmental lab equipment & OCEMS-Online Continuous Emission/Effluent Monitoring System	1	0.01
5.	Solid& hazardous Waste Management	0.15	0.05
6.	Ash handling & management	0.5	0.05
7.	Occupational Health & Safety	0.5	0.07
8.	Greenbelt development	0.6	0.2
9.	Fire fighting	0.55	0.07
10.	Rainwater harvesting systems	0.1	0.03
11.	CER (Education, Health, Solar Light and Drinking water.	1.96	-

<b>TOTAL</b>	<b>13.13</b>	<b>1.78</b>
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**Details of CER with proposed activities and budgetary allocation:**

<b>S.N</b>	<b>DESCRIPTION</b>	<b>PHYSICAL NOS. &amp; VILLAGE</b>	<b>CAPITAL COST INR LAKHS</b>
1.	<p>1. Deepening of existing bore wells/ponds in nearby villages for drinking water.</p> <p>2. Construction of 1 new borewell in Koyba village as per requirement.</p> <p>3. Plastic Water Tank distribution 25 Nos.</p>	03 Villages Koyba, New Koyba & Haripur Village	18
2.	Provision of Street Solar light 180 units.	Koyba, New Koyba and Haripur Village, Dhavana Village and Kavadiya village	92
3.	Maintenance of Road	From project site to nearby Morbi SH	50
4.	Plantation Program	500 Plants alongside Khari Dam with consultation from local authority.	15
5.	Distribution of Drinking Water (RO)	04 nos. in Primary School, Koyba & Govt School Halvad, Dhavana & Kavadiya	8
6.	6 nos of computer distribution along with printer and internet facility	01 Computers in Koyba Primary School & 05 in Halvad School	3
7.	Free Health checkup and supply of medicines to the sick people in the nearby villages	Village. Koyba new Koyba, Halvad Dhavana and Kavadiya	8
8.	Impart training to the local villagers for skill development & providing employment to them in the industry		2
	<b>Total Amount</b>		<b>196</b>

During deliberations, EAC discussed following issues:

- PP will install 10 KLD STP for the treatment of domestic wastewater.
- PP committed that no tree cutting will be done at the project site.
- PP committed that they will develop 1.4 Hect of greenbelt area.
- Baghouse will be installed with boiler to control Particulate Matter Emissions.
- PP committed that Connecting Road from project site to nearest state highway will be maintained by them.
- 20 m thick greenbelt will be developed towards the forest area which is 350 m away from project site.
- No ground water will be used for the production activities only Narmada canal water will be used.
- No sludge drying beds will be used.
- 15% of total power requirement will be used by solar power.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have



found the proposal in order and have **recommended** for grant of environmental clearance.

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance, subject to compliance of terms and conditions as under, and general terms of conditions at Annexure: -

- (i). As per the Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed capacity of 60 KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.

- (iv). NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing water from surface water for the distillery activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission. No ground water shall be used for the plant operations.
- (v). Total Fresh water requirement shall not exceed 240 m<sup>3</sup>/day which will be met from Narmada Canal. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent Wash/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc. shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (vii). Bag house ESP (5 field) with a stack height of 45 meters will be installed with the Rice Husk/Biomass fired 25 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.
- (viii). Boiler ash (40 TPA) will be used for brick manufacturing supplied to brick manufacturers/ given to farmers to be used as manure. PP shall use Rice Husk/Biomass as fuel for the proposed boiler. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

- (ix). CO<sub>2</sub> (50 TPD) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and it shall be sold to authorized vendors/collected in proposed bottling plant.
- (x). PP shall allocate at least Rs. 0.5 Crore/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained. Location of ethanol storage tanks shall be placed in such a way that in the event of any fire, accident, explosion or any unforeseen conditions the impact of such event should not go beyond the boundary of the plant i.e. the risk should be tolerable (acceptable) at the boundary.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiv). The company shall undertake waste minimization measures as below  
(a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 1.35 hectares i.e., 33.86 % of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous

/ alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed before commissioning of the plant. 20 m thick greenbelt will be developed towards the forest area which is 350 m away from project site.

- (xvi). PP proposed to allocate Rs. 1.96 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. The Connecting Road from project site to nearest state highway will be maintained by plant. No direct entry and exit of vehicles to/from highway is permitted. Entry and exit of vehicles from the Highway shall be through slip road.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.
- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be

transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xxi). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12<sup>th</sup> August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

### **Agenda No. 02**

**Proposed 56,000 TPA GREEN FIELD Coal Tar Distillation Plant for production of 30,800 TPA of Coal Tar Pitch; 22,120 TPA of Creosote Oil (light and heavy) and 1680 TPA of Crude Naphthalene located at Export Promotion Industrial Park (EPIP), under WBSIDC Ltd., Vill.: Bamunara, Mouza : Bamunara, P.S.: Kanksa, Dist.: Paschim Bardhaman, West Bengal by M/s. B S TAR PVT. LTD. - Consideration of Environmental Clearance.**

**[IA/WB/IND2/426590/2023, IA-J-11011/184/2023-IA-II(I)]**

It has been informed to EAC by PP vide mail dated 25.07.2023 that due to unavoidable circumstances they will not be able to attend EAC meeting.

**Accordingly, the proposal was deferred. Proposal will be considered as and when PP will submit request on PARIVESH portal.**

### **Agenda No. 03**

**Brownfield Grain Based Ethanol Plant from 200 KLPD to 325 KLPD along with Co-generation Power Plant from 5 MW to 10 MW under Ethanol Blending Programme at Vill. Rajapatti Kothi, Block-Baikunthpur, Dist- Gopalganj of Bihar State by M/s. Westwell Biorefineries Pvt. Ltd. (Previously Sona Sati Organics Pvt. Ltd.) - Consideration of Environmental Clearance.**

**[IA/BR/IND2/421820/2023, IA- J-11011/25/2007-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s Paramarsh Servicing Environment & Development, Lucknow, (NABET Certificate No. NABET/EIA/2124/RA 0224 and validity 01<sup>st</sup> May' 2024) made a detailed presentation on the salient features of the project and informed that the proposal is for environmental clearance to the project for expansion of existing distillery unit from 200 KLPD to 325 KLPD, & Co-generation power plant for distillery from 5 MW to 10 MW (Rice Husk/Biomass/Coal(will be used in emergency)) located at Village Rajapatti Kothi, Tehsil Baikunthpur, District Gopalganj , State Bihar by M/s Westwell Biorefineries Pvt. Ltd. (Previously Sona Sati Organics Pvt. Ltd.).

As per EIA Notification 2006 (Schedule 5 (ga) Category A); however, as per in the MoEFCC Notification S.O. 345(E), dated the 17<sup>th</sup> January, 2019, notification number S.O. 750(E), dated the 17<sup>th</sup> February, 2020, S.O. 980 (E)dated 02<sup>nd</sup> March, 2021 & S. No. 2339(E) 16<sup>th</sup> June, 2021, a special provision in the EIA Notification, 2006 "Expansion of distilleries for production of ethanol, having Prior Environment Clearance (EC) for existing unit, to be used completely for Ethanol Blended Petrol (EBP) Programme only, as per self-certification in form of an affidavit by the Project Proponent, shall be appraised as category 'B2' projects.

**The details of products and capacity as under:**

S. No.	Name of Unit	Name of Product / By Product	Production Capacity		
			Existing	Proposed	Total
1	Distillery (Broken Rice / Maize raw	Ethanol	200 KLPD	125 KLPD	325 KLPD

	material)				
2	Co-generation power plant for distillery	Power	5.0 MW	5.0 MW	10.0 MW
3	DWGS Dryer	DDGS	80 TPD	180 TPD	260 TPD
4	Fermentation Unit	Carbon dioxide	NA	260 TPD	260 TPD

Ministry has issued Environmental Clearance to the existing Industry for a capacity of 200 KLD Ethanol (75 KLPD Molasses and 125 KLPD Grain) and 5 MW Cogeneration Plant vide File No. J-11011/25/2007-IA II(I) dated 18.01.2019. Bihar State Pollution Control Board has granted CTE based on "No Increase in Pollution Load Certification" for change of raw material mix from molasses to grain for existing 75 KLPD molasses based distillery vide Ref. No. 1335 Dt: 02.05.2022. Consent to Operate (CTO) for 200 KLD grain based project has been granted by BSPCB vide Ref. No. M/T-3-2018/447 (Part-II)/3650 Dt: 14.12.2022 under The Air Act'1981 and Ref. No. M/T-3-2018/447 (Part-II)/3651 Dt: 14.12.2022 under The Water Act'1974 valid upto 13.12.2027. Certified Compliance report of existing EC has been obtained from Integrated Regional Office, MoEFCC, Ranchi vide File no- 103-165/R.O.R./2019/700 dated 17.11.2022. Action Taken Report has been submitted to IRO, MOEFCC, Ranchi dated 18.02.2023 for 7 partial compliances. ATR dated 18.0.2023 on issues regarding disposal of waste, CER, training, funds and environmental statement has been submitted to IRO. EAC was satisfied with the response of PP.

Standard ToR and Public Hearing is not applicable as the project falls under category B2 as per OM dated 16<sup>th</sup> June, 2021. It was informed that there is no litigation is pending against the project.

Total plant area after expansion will be 12.14 Ha which is under possession of the company and converted to industrial use. No additional land will be acquired for the expansion project as the same will be done within existing plant premises. Out of the total plant area 4 Hectares i.e. 33% of the total plant area has already been developed as greenbelt & plantation and the same will be maintained/ will be developed under greenbelt & plantation in and around plant premises. The estimated project cost is Rs. 56 Crores. Capital cost of EMP would be Rs. 7.25 Crores and recurring cost for EMP would be Rs. 1.25 Crores per annum. Industry proposes to allocate Rs. 1.14

Crores towards extended EMP (Corporate Environment Responsibility). Total Employment after expansion will be -25 persons as direct & indirect.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance. There are no Reserve forests/protected forests within 10 Km. radius. Water bodies: River Gandak is at a distance of 5 Km in NE direction.

AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be  $2.0 \mu\text{g}/\text{m}^3$ ,  $1.4 \mu\text{g}/\text{m}^3$ ,  $3.9 \mu\text{g}/\text{m}^3$  and  $3.5 \mu\text{g}/\text{m}^3$  with respect to  $\text{PM}_{10}$ ,  $\text{PM}_{2.5}$ ,  $\text{SO}_2$  and  $\text{NO}_x$ . The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total fresh water requirement will be  $1445 \text{ m}^3/\text{day}$  which will be met from Borewells within premises. CGWB has permitted for  $1800 \text{ m}^3/\text{day}$  ground water vide No. CGWB/MER/CGWA/Tech-34/2020-21-641 Dt: 14.09.2021. Effluent (Condensate/spent lees/blowdown etc.) of  $489 \text{ m}^3/\text{day}$  quantity will be treated through Condensate Polishing Unit/Effluent Treatment Plant of capacity  $840 \text{ m}^3/\text{day}$ . Raw stillage (990 KLPD :quantity of raw spent wash from distillation) will be sent to decanter followed by MEE and dryer to produce DDGS. Domestic waste water is being treated in STP of capacity 25 KLPD. The plant is being based on Zero Liquid discharge system and treated effluent/water is not being discharged outside factory premises.

Total power requirement of distillery after expansion will be 9.7 MW, which will be sourced from 10 MW co-generation power plant after expansion. Existing distillery has 28 TPH Spent wash/rice husk / Coal fired boiler. After expansion existing boiler will be non-operation and kept as standby. 32 TPH & 35 TPH Rice husk Biomass/ Coal (for emergency requirement) fired boiler will be installed in distillery during expansion. APCE Multi Cyclone and Wet Scrubber with a stack of height of 45 m is installed with the existing boiler of 28 TPH for controlling the particulate emissions within the statutory limit of  $50 \text{ mg}/\text{Nm}^3$ . APCE ESP with a stack height of 45 m (existing stack) will be installed for controlling the particulate emissions within the statutory limit of  $50 \text{ mg}/\text{Nm}^3$  for the 32 TPH & 35 TPH Rice husk Biomass proposed boiler. Industry has 1010 KVA DG set which will be used as standby during power failure and stack height (3.5 m above the roof of building) will be provided as per CPCB norms to the DG sets.



### **Details of Process emissions generation and its management:**

- APCE Multi Cyclone and Wet Scrubber with a stack of height of 45 m is installed with the existing 28 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. PP informed that they will dismantle the existing 28 TPH boiler after expansion. APCE ESP with a stack height of 45 m stack) will be installed for controlling the particulate matter emissions within the statutory limit of 30 mg/Nm<sup>3</sup> with the proposed 32 TPH & 35 TPH husk/ Coal fired boiler.
- Online Continuous Emission Monitoring System is installed with the stack and data will be transmitted to CPCB/SPCB servers.
- CO<sub>2</sub> (260 TPD) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and it will be sold to authorized vendors/collected in proposed bottling plant.

### **Details of solid waste/Hazardous waste generation and its management:**

- DDGS (Distilled Dried Grains Stillage) (260 TPD) will be sold as cattle feed / fish feed / prawn feed.
- Boiler ash (30 TPD) will be supplied to fly ash brick manufacturers
- Used oil (0.5 Kilolitres per annum) will be sold to authorized recyclers.
- CPU sludge (0.1 TPD) and STP Sludge (0.025 TPD) will be used as manure.

As per Notification S.O 2339(E), dated 16<sup>th</sup> June, 2021, PP has submitted self-certification in the form of notarized affidavit declaring that the proposed expansion capacity of 125 KLPD will be used for manufacturing fuel ethanol only.

### **Revised Capital cost and recurring cost of EMP are given below:**

<b>Particulars</b>	<b>Amount in INR, Lakhs</b>
<b>One Time Installation Cost</b>	
1. Air Pollution Control System	225.0
2. MEE, CPU, Decanter & DWGS Dryer System	285.0

3. Solid waste such as Garbage, process and ETP storage and odor management system	40.0
4. Green Belt Development	50.0
5. Installation of Fire Safety System	60.0
6. Installation of Solar Power System	50.0
7. Rain Water Harvesting System	15.0
<b>Total</b>	725.0
<b>Recurring Cost / Annum</b>	
1. Environmental Monitoring	25.0
2. Maintenance Cost of Air Pollution Control System	45.0
3. Maintenance of MEE, CPU & DWGS Dryer System	30.0
4. Greenbelt maintenance	15.0
5. Maintenance of ETP / STP / Water Treatment Plant	10.0
<b>Total</b>	125.0

**Details of CER with proposed activities and budgetary allocation:**

CER Activities	Period with Budget allocation		
	Upto Dec. 2023	Upto Dec. 2024	Total
	Amount in Lakh Rs.		
a. Installation of 5 KW Solar PV plate at roof top of Govt. School, Kisan Bhawan, Panchayat Bhawan etc. (5 Nos.)	15	15	30
b. Provision of Waste collection vehicle for local body viz. Gram Panchayat (5 nos. hand driven and 3 nos. motorized)	15	15	30
c. Distribution of Sabji Kothi (Vegetable vending system) to local vegetable farmers (10 Nos.)	10	10	20
d. Skill development for 100 nos. local youths (as per employability potential) from villages within 10 km. radius. Training Charges Rs. 5000/= plus Rs. 2500/= stipend per month for 2 months. (Rs. 10000 / youth)	5	5	10
e. Provision of Modern Ambulance to govt. hospital in consultation with Civil Surgeon, Gopalganj	12	12	24

<b>TOTAL CER AMOUNT ( 2 % of Project Cost )</b>	<b>57</b>	<b>57</b>	<b>114</b>
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Revised greenbelt development action Plan:

### **DETAILS OF EXISTING TREE PLANTATION**

Name of Trees	Scientific Name	Nos. Planted
Sheesham	<i>Dalbargia sisoo</i>	140
Neem	<i>Azadirachta Indica</i>	125
Amla	<i>Emblica officinalis</i>	95
Mahogany	<i>Swietenia mahagoni</i>	720
Peepal	<i>Ficus religiosa</i>	75
Mango	<i>Mangifer Indica</i>	350
Kadamb	<i>Neolamarckia cadamba</i>	150
Jamun	<i>Syzygium cumini</i>	140
Ashoka	<i>Polyalthia pendula</i>	570
Imli	<i>Tamarindus indicus</i>	95
Sitafal	<i>Annona squamosa</i>	110
Mahanimb	<i>Ailanthus excelsa</i>	135
Cotton Tree	<i>Bombax ceiba</i>	90
Kachnaar	<i>Bauhinia acuminata</i>	160
Sal	<i>Shorea robusta</i>	270
Poplar	<i>Populus ciliata</i>	510
Bamboo	<i>Bambusa vulgaris</i>	250
TOTAL		<b>3985</b>

### **DETAILS OF PROPOSED TREE PLANTATION**

Name of Trees	Scientific Name	Nos. Planted
Sheesham	<i>Dalbargia sisoo</i>	700
Neem	<i>Azadirachta Indica</i>	150
Amla	<i>Emblica officinalis</i>	110
Mahogany	<i>Swietenia mahagoni</i>	555
Peepal	<i>Ficus religiosa</i>	50
Mango	<i>Mangifer Indica</i>	350
Kadamb	<i>Neolamarckia cadamba</i>	100
Jamun	<i>Syzygium cumini</i>	75
Ashoka	<i>Polyalthia pendula</i>	750
Imli	<i>Tamarindus indicus</i>	30
Sitafal	<i>Annona squamosa</i>	45
Mahanimb	<i>Ailanthus excelsa</i>	75

Cotton Tree	<i>Bombax ceiba</i>	50
Kachnaar	<i>Bauhinia acuminata</i>	110
Sal	<i>Shorea robusta</i>	350
Poplar	<i>Populus ciliata</i>	700
Bamboo	<i>Bambusa vulgaris</i>	800
TOTAL		<b>5000</b>

During deliberations, EAC discussed following issues:

- Committee suggested to revise the EMP cost. Accordingly, PP has submitted revised EMP cost.
- PP has submitted revised greenbelt action plan indicating number of plant and species to be planted. PP has also submitted revised layout map indicating 5-10m thick greenbelt along periphery of the project site.
- PP has submitted Risk Assessment report.
- PP agreed with the suggestion of the Committee to use 100% biomass as fuel for boiler.
- PP committed that they will dismantle the existing 28 TPH boiler after expansion.
- PP committed that they would install CO<sub>2</sub> plant in 6 months.
- The Committee suggested that PP should improve the housekeeping of the existing unit.
- The Committee suggested that PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.

The committee was satisfied with the response provided by PP on above information. Further, Committee desired to submit the above information in writing. Accordingly, PP has submitted the desired information and EAC found the information/commitments satisfactory.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with the EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his

knowledge and belief and no information has been suppressed in the report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EMP report is in compliance of the PFR. The Committee deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have **recommended** for grant of environmental clearance.

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance, subject to compliance of terms and conditions as under, and general terms of conditions at Annexure: -

- (i). As per the Notification S.O. 2339(E), dated 16<sup>th</sup> June, 2021, project falls in category B2 and the proposed expansion capacity of 125KLPD shall only be used for fuel ethanol manufacturing as per self-certification in form of a notarized affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). EC granted for a project on the basis of the submitted documents shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of project. Conversion of land use (CLU) certificate shall be obtained before start of construction activities.
- (iv). NOC from the Concerned Local authority shall be obtained before start of the construction of plant and drawing water from Borewells for the distillery activities, State Pollution Control Board / Pollution Control Committees shall not issue the Consent to Operate (CTO) under Air (Prevention and Control of Pollution) Act and Water (Prevention and Control of Pollution) Act till the project proponent shall obtain such permission. No ground water shall be used for the plant operations.
- (v). Total Fresh water requirement shall not exceed 1300 m<sup>3</sup>/day which will be met from Borewells. No ground water recharge shall be permitted within the premises. Industry shall construct a rain water storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (vi). Spent Wash/stillage shall be sent to the decanter followed by the Multiple Effect Evaporator and dryer to form DDGS. DDGS to be used as cattle feed. The MEE & Drier condensate, spent lees, WTP Rejects, Boiler & Cooling tower blowdowns, washings etc., shall be treated in the 'Condensate Polishing Unit' (CPU). STP shall be installed to treat domestic wastewater. The plant will be based on 'Zero Liquid Discharge' system and no effluent/treated water will be discharged outside factory premises.
- (vii). APCE ESP (5 field) with a stack height of 45 m (existing stack) will be installed with Rice husk/ Biomass fired 32 TPH & 35 TPH boiler for controlling the particulate emissions within the statutory limit of 50 mg/Nm<sup>3</sup>. PP shall dismantle the existing 28 TPH boiler after expansion.

At no time, the emission levels shall exceed the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Performance assessment of pollution control devices/ systems will be conducted annually.

- (viii). Boiler ash (30 TPD) will be supplied to fly ash brick manufacturers. PP shall use Rice Husk/Biomass as fuel for the proposed boiler. PP shall meet 15% of the total power requirement from solar power by generating power inside plant premises/adjacent/nearby areas.
- (ix). CO<sub>2</sub> (260 TPD) generated during the fermentation process will be collected by utilizing CO<sub>2</sub> scrubbers and it will be sold to authorized vendors/collected in proposed bottling plant. PP shall install CO<sub>2</sub> plant within 6 months.
- (x). PP shall allocate at least Rs. 0.5 Crore/annum for Occupational Health Safety. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (xii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms. PESO certificate shall be obtained. Location of ethanol storage tanks shall be placed in such a way that in the event of any fire, accident, explosion or any unforeseen conditions the impact of such event should not go beyond the boundary of the plant i.e. the risk should be tolerable (acceptable) at the boundary.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement and other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

- (xiv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in nearly 4.0 hectares i.e. 33% of the total project area with tree density @ 2500 trees per hectares, mainly along the plant periphery. Indigenous species shall only be developed as part of greenbelt and non-indigenous / alien species shall be replaced with native species. No invasive or alien or non-native tree species shall be selected for plantation. PP shall develop at least 20 variety of species as a part of greenbelt. Saplings 4-6 feet high shall be planted. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department and native species shall be developed. Records of tree canopy shall be monitored through remote sensing map. Greenbelt development shall be completed by December 2023. PP shall ensure that no existing tree is cut.
- (xvi). PP proposed to allocate Rs. 1.14 Crores towards Extended EMP (CER) which shall be spent as submitted in CER plan. Further, all the proposed activities under CER shall be completed before the commissioning of the plant in consultation with District Administration.
- (xvii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products and no parking to be allowed outside on public places. Out of the total project area, 15% shall be allotted solely for parking purposes with facilities like rest rooms etc. The Connecting road from project site to state highway will be maintained by plant. No direct entry and exit of vehicles to/from highway is permitted. Entry and exit of vehicles from the Highway shall be through slip road.
- (xviii). Storage of raw materials shall be either in silos or in covered areas to prevent dust pollution and other fugitive emissions. All stockpiles should



be constructed over impervious soil and garland drains with catch pits to trap runoff material shall be provided. Biomass shall be stored in covered sheds and wind breaking walls/curtains shall be provided around biomass storage area to prevent its suspension during high wind speed. All Internal roads shall be paved. Industrial vacuum cleaner shall be provided to sweep the internal roads. The Air Pollution Control System shall be interlocked with process plant/machinery for shutdown in case of operational failure of Air Pollution Control Equipment.

- (xix). Continuous online (24x7) monitoring system for stack emissions/effluent shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization/Director/CEO as per company hierarchy.
- (xxi). PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12<sup>th</sup> August, 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.

## **ANNEXURE**

### **GENERAL CONDITIONS FOR ENVIRONMENTAL CLEARANCE**

- (i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (ii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- (iii) 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 shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- (iv) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- (v) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.

- (vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal.
- (vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- (viii) The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
- (ix) 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 SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.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 concerned Regional Office of the Ministry.
- (x) 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 the project.
- (xi) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

**List of the Expert Appraisal Committee (Industry-2) members participated during Video Conferencing (VC) meeting**

<b>S. No.</b>	<b>Name and Address</b>	<b>Position</b>
1.	Shri S. C. Mann	Chairman
2.	Dr. J. S. Sharma	Member
3.	Prof. Y. V. Rami Reddy	Member
4.	Dr. Onkar Nath Tiwari	Member
5.	Shri. J.S. Kamyotra	Member
6.	Dr. Rahul RameshraoMungikar	Member
7.	Dr. Sanjay V. Patil	Member
8.	Dr. Siddhartha Singh	Member
9.	Shri A. N. Singh, Scientist 'E'	Member Secretary
<b>MoEFCC</b>		
10.	Dr. Mahendra Phulwaria	Scientist 'C'

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