



**Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)**

To,

The VicePresident
KARTHIK AGRO INDUSTRIES PRIVATE LIMITED
Sy No. 92 Hoolgeri Village Tal. Badami Dist. Bagalkot,,Bagalkot,Karnataka
-587902

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity
under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/KA/IND2/191585/2021 dated 08 Dec 2021. The particulars of the environmental clearance granted to the project are as below.

1. EC Identification No.	EC22A022KA119695
2. File No.	J-11011/224/2008-IA II (I)
3. Project Type	Expansion
4. Category	A
5. Project/Activity including Schedule No.	5(g) Distilleries
6. Name of Project	Expansion of 65 KLPD Molasses/Grain Based Distillery to 180 KLPD Molasses/Grain Based Distillery By Karthik Agro Industries Pvt Ltd., (KA IPL), Located At: SY NO 92 Hoolageri Village, Tal.: Badami, Dist.: Bagalkote, Karnataka.
7. Name of Company/Organization	KARTHIK AGRO INDUSTRIES PRIVATE LIMITED
8. Location of Project	Karnataka
9. TOR Date	22 Jan 2021

The project details along with terms and conditions are appended herewith from page no 2 onwards.

(e-signed)
A.K Pateshwary
Director

IA - (Industrial Projects - 2 sector)

Date: 17/03/2022

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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This has reference to your online proposal no. IA/KA/IND2/191585/2021, dated 08th December, 2021 for environmental clearance to the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the Expansion of Grain / Molasses based Distillery from 65 to 180 KLPD & CPP from 1.4 to 5.4 MW by M/s. Karthik Agro Industries Pvt. Ltd., (KAIP) located at SY No 92 Hoolageri Village, Tal. Badami, Dist. Bagalkote, Karnataka.

3. As per the provisions of "EIA Notification No. S.O. 1533 (E)" dated 14.09.2006; as amended vide Notification No. "S.O. 1960 (E)" dated 13.06.2019; the proposed Expansion of Grain / Molasses based Distillery from 65 to 180 KLPD activity at 5(g) under Category 'A' & is being appraised at Center Level by EAC of MoEFCC.

4. The Standard ToRs has been issued by Ministry vide letter No. J-11011/224/2008-IA II (I) dated 22nd January, 2021 for Expansion of Grain / Molasses based Distillery from 65 to 180 KLPD & CPP from 1.4 to 5.4 MW. Public Hearing for the proposed project has been conducted by the Karnataka State Pollution Control Board on 21.09.2021 at Project Site of Karthik Agro Industries Pvt. Ltd (KAIP), Bagalkot and chaired by Additional Deputy Commissioner, Bagalkot. No any specific issues were raised during the Public Hearing. It was informed that no litigation is pending against the project.

5. Ministry has issued EC earlier vide letter No. J-11011/224/2008-IA II (I) dated 17th March, 2009 to the Establishment of 65 KLPD Grain/ Molasses based Distillery in favor of Karthik Agro Industries Pvt. Ltd. (KAIP).

6. Details of Certified compliance report submitted by IRO, MoEF&CC. Visit of IRO, MoEFCC, Bangalore was conducted on 04.08.2021 and IRO report was received on 07.09.2021. The compliance to the various conditions of Environment Clearance is Satisfactory. Certified Compliance Report is found satisfactory by the EAC and recommended the proposal.

7. The details of products and capacity are as under: -

Industrial Unit	Products & By-products	Units	Quantities		
			Existing	Proposed	Total
Distillery (65 to 180 KLPD)	Rectified Spirit/ ENA/ Ethanol/ Absolute Alcohol (AA)	KL/M	1,950	3,450	5,400
	By-product				
	DWGS	MT/M	6,540	11,460	18,000
	DDGS (10% Moisture)	MT/M	---	6,000	6,000
	Fusel Oil	MT/M	3.6	6.6	10.2
	CO2	MT/M	1,620	2,880	4,500
CPP	Electricity	MW	1.4	4.0	5.4

(1.4 to 5.4 MW)					
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8. Existing land area is 1,61,874 M². No additional land area will be acquired for expansion project. Industry has already developed Green Belt in an area of 64,000 M² (40% of total plot area). The estimated project cost is Rs. 164.5 Crores including existing investment of Rs. 48 Crores. Total capital cost earmarked towards environmental pollution control measures under distillery is Rs. 79.05 Crores and the Recurring cost (operation and maintenance) will be about Rs. 8.20 Crores per annum. Total Employment is 197 persons as direct & indirect persons after expansion. Industry proposes to allocate Rs.1.5 Crores @ of 1.3% towards Corporate Environmental Responsibility.

9. There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 Km Study Area. Ghatprabha river is flowing at a distance of 8 Km from East to West direction.

10. Ambient air quality monitoring was carried out at 8 locations during October 2020 – November 2020 – December 2020 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (44.60 – 65.90 µg/M³), PM_{2.5} (13.20 – 22.60 µg/M³), SO₂ (11.70 – 26.20 µg/M³) and NO_x (18.80 – 30.90 µg/M³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 0.338 µg/M³ for PM₁₀ (towards West side), 0.086 µg/m³ for PM_{2.5} (towards West side), 3.05 for SO₂ µg/m³ (towards West side) and 0.714 µg/m³ NO_x(towards West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

11. Total water requirement after expansion of Molasses based Distillery will be 2218 CMD. Out of which 687 CMD will be fresh water taken from Ghatprabha River. Total water requirement after expansion of Grain based Distillery will be 2104 CMD. Out of which 896 CMD will be fresh water taken from Ghatprabha River. After expansion of Grain based Distillery, process effluent generated in the form of FOC, PRC RC Lees – 590 M³/D, Condensate – 425 M³/D & Other effluent to the tune of 142 M³/D which will be treated in existing & proposed CPUs & recycled in process. After expansion of Molasses based Distillery, process effluent generated in the form of raw spent wash to the tune of 1,440 M³/D which would be concentrated in Multiple Effect Evaporator (MEE) and the conc. Spent wash @ 288 MT/D (1.6 KL/KL of alcohol) would be blended with bagasse or coal and burnt in proposed 40 TPH incineration boiler. Other effluents viz. spent lees @ 285 M³/D, MEE condensate @ 1152 M³/D and other effluents @ 142 M³/D will be treated in existing & proposed CPUs. Treated effluent from CPU will be reused in process and boiler makeup, thereby achieving Zero Liquid Discharge (ZLD) for Distillery. Domestic effluent @ 8 M³/Day will be treated in proposed STP. The distillery will be operated for 330 days.

12. Power requirement for distillery after expansion will be 3.7 MW will be met from own Co-gen Plant. After Expansion no DG set will be installed. Existing unit has 500 KVA DG set with 2.1 M stack height. Existing Distillery has one 16 TPH Boiler which is already installed. M.D.C. (Mechanical Dust Collector) with a stack

of height of 47 M is installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the boiler. After expansion, under Molasses based Distillery a new incineration boiler of 40 TPH capacity would be installed. Bagasse (400 MT/D) / Coal (166 MT/D) & Spent wash (388 MT/D) would be used as fuel. ESP with a stack of height of 100 M installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the boiler. Under Grain based Operations a 50 TPH Husk (225 MT/D) / Bagasse (500 MT/D) would be used as fuel. ESP with a stack of height of 61 M installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the boiler.

13. Details of process emissions generation and its management:

The CO₂ generation shall take place in fermenters of the distillery. CO₂ to the tune of 150 MT/Day shall be released from 180 KLPD distillery plant. CO₂ shall be compressed, bottled and supplied to manufacturers of beverages.

14. Details of Solid waste/Hazardous waste generation and its management:

Details of Solid waste generated & its management

No.	Description	Quantity (MT/D)		Disposal Facility
		Existing	After Expansion	
1	Boiler Ash	29	81	To Bricks Making
2	Yeast Sludge	14	39	Burnt in Incineration
3	CPU Sludge	1	1	Boiler

Details of Hazardous waste generated & its management

No any hazardous waste will be generated from distillery unit.

15. During deliberations EAC sought the following information /commitments from PP:

- (i). Brick manufacturing unit will be installed within the plant premises for utilization of coal fly ash. Bagasse/rice husk ash shall be stored in dedicated silos before being supplied to farmers for use as manure.
- (ii). PP shall use bagasse/rice husk as a fuel of boiler. Only in case of emergency or shortage of bagasse/rice husk, PP shall use low sulphur coal with maximum sulphur content of 0.5%.
- (iii). PP shall install CO₂ bottling plant within premises.
- (iv). PP shall meet 10% (1 MW) of the total power requirement from solar power.
- (v). ESP shall be installed with the boiler.
- (vi). The proposed 40 TPH incineration boiler shall be provided with ESP & stack height shall be increased to 100 m.
- (vii). PP shall allocate at least Rs. 50 Lakhs/annum for Occupational Health Safety.

(viii). The proposed budget allocation of Rs. 2.0 Crores towards CER. An amount of Rs. 1.0 Crore shall be used for construction/up-gradation for adopting two public schools building with provision of facilities e.g. Class rooms, Playground, Laboratory, Library, Computer class, Toilets, Drinking Water Facilities, Solar light etc. Remaining amount of Rs. 1.0 Crore shall be used for solar photovoltaic electricity generation systems for nearby villages. Further, the works under CER Plan shall be implemented in consultation with District Collector before the commissioning of project.

PP has submitted the desired commitments/information sought above in the form of undertaking except for point (vii) which is imposed as specific condition.

16. The proposal was considered by the EAC in its 51st meeting held on 23rd - 25th February, 2022 in the Ministry, wherein the project proponent and their consultant M/s. Equinox Environments (I) Pvt. Ltd., presented the case. The Committee **recommended** the project for grant of environmental clearance.

17. 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 EIA/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 EIA/EMP 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.

18. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee. 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.

19. 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.

20. 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 Grain / Molasses based Distillery from 65 to 180 KLPD & CPP from 1.4 to 5.4 MW by M/s. Karthik Agro Industries Pvt. Ltd., (KAIPL) located at SY No 92 Hoolageri Village, Tal. Badami, Dist. Bagalkote, Karnataka**, under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under:-

A. Specific Condition:

- (i). 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.
- (ii). The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.
- (iii). Total fresh water requirement shall not exceed @ 3.5 KI/KI and will be met from Ghatprabha River. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Industry shall construct a storage pond of 60 days capacity and the accumulated water to be used as fresh water thereby reducing fresh water consumption.
- (iv). The spent wash shall be concentrated and dried to form DDGS to be used as cattle feed in grain based mode and in molasses based mode, spent wash shall be incinerated. ESP shall be installed with the boiler. Brick manufacturing unit will be installed within the plant premises for utilization of coal fly ash. Bagasse/rice husk ash shall be stored in dedicated silos before being supplied to farmers for use as manure. PP shall use bagasse/rice husk as a fuel of boiler. Only in case of emergency or shortage of bagasse/rice husk, PP shall use low sulphur coal with maximum sulphur content of 0.5%.PP shall meet 10% (1 MW) of the total power requirement from solar power.The proposed 40 TPH incineration boiler shall be provided with ESP & stack height shall be increased to 100 m.

- (v). CO₂ bottling plant shall be installed within plant premises.
- (vi). PP shall allocate at least Rs. 50 Lakhs/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.
- (vii). 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.
- (viii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
- (ix). 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.
- (x). 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.
- (xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xii). The proposed budget allocation of Rs. 2.0 Crores towards CER. An amount of Rs. 1.0 Crore shall be used for construction/up-gradation for adopting two public schools building with provision of facilities e.g. Class rooms, Playground, Laboratory, Library, Computer class, Toilets, Drinking Water Facilities, Solar light etc. Remaining amount of Rs. 1.0 Crore shall be used for solar photovoltaic electricity generation systems for nearby villages. Further, the works under CER Plan shall be implemented in consultation with District Collector before the commissioning of project.
- (xiii). 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.

- (xiv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- (xv). Continuous online (24x7) monitoring system for stack emissions 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.
- (xvi). 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.

B. General Condition:

- (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 31st 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.

21. 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.

22. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

23. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

24. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

25. This issues with the approval of the competent authority.

(Ashok Kr. Pateshwary)
Director

Copy to: -

1. The Secretary, Department of Forest, Environment & Ecology, Government of Karnataka, Room No. 708, Gate 2, Multi Storey Building, Dr. Ambedkar Veedhi, Bangalore - 1
2. The Regional Officer, Ministry of Env., Forest and Climate Change, Integrated Regional Office, Kendriya Sadan, 4th Floor, E&F Wings, 17th Main Road, Koramangala II Block, Bangalore - 34
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar, Delhi - 32
4. The Member Secretary, Karnataka State Pollution Control Board, Parisara Bhavan, #49, 4th& 5th Floor, Church Street, Bangalore -1
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi
6. The District Collector, District Bagalkote, Karnataka
7. Guard File/Monitoring File/Parivesh portal/Record File

(Ashok Kr. Pateshwary)
Director
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Signature Not Verified
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Director
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