



PUNJAB POLLUTION CONTROL BOARD

VATAVARAN BHAWAN, NABHA ROAD, PATIALA



Expression of Interest (Eoi) for Eco-Management and utilization of cattle dung through vermicomposting, manure making, cattle dung logs/cake etc. in Gaushalas & Dairy Farms in the State of Punjab

The Punjab Pollution Control Board (PPCB) is encouraging to Eco-Management and utilization of cattle dung through vermicomposting (composting by Earthworms), manure making, cattle dung logs/cake etc. in Gaushalas & Dairy Farms in the State of Punjab with the objective of using cattle dung in an economic, social and environmentally sound manner in the State of Punjab.

The Board thus invites applications from the interested Gaushalas and Dairy Farms of Punjab for Eco-Management and utilization of cattle dung through vermicomposting, manure making, cattle dung logs/cake etc. The details regarding background of issue, scope of work, and eligibility are available at website of PPCB i.e. www.ppcb.gov.in. The Board shall provide technical as well financial assistance to the selected Gaushals and Dairy farms.

The interested parties meeting with the prescribed criteria may submit their applications within 30 days from publication of this notice in the office of undersigned. For further details, Sh. Harinder Singh, Environmental Engineer may be contacted at email eehq1.2@gmail.com and Mob. No. 81466-62532.

MEMBER SECRETARY

PUNJAB POLLUTION CONTROL BOARD

Vatavaran Bhawan, Nabha Road, Patiala

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1.0 Background

As per 20th Livestock Census carried out by Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture and Farmers Welfare, in 2019, Punjab state population of bovine by sex and in urban & rural area is as follow:

Sr.No.	State/UT	Male Bovine	Female Bovine	Total Bovine in Rural Area	Total Bovine in Urban Area	Total Bovine
1.	Punjab	3,47,572	61,99,835	60,99,440	4,47,967	65,47,407

Categorization of Dairy Farms and Gaushalas

Dairy Farms/Gaushalas are categorized on basis of nos. of bovine animals in a Dairy/Gaushala located in urban, peri-urban & rural area.

Dairy Farms

According to inventory for dairy farms, it is analyzed that 60-70% Dairy Farms are having upto 25 animals, 15-20% Dairy Farms are having upto 100 animals and 15-20% Dairy Farms are having more than 100 animals. Therefore, they have been categorized as small, medium & large Dairy farm, respectively. It has been analyzed that 5-10%, 5-10% and 80-90% Dairy Farms located in urban, peri-urban & rural area, respectively.

Gaushalas

Similarly, as per inventory for Gaushalas, it is analyzed that 15-20% Gaushalas having upto 100 animals and 80-85% Gaushalas having more than 100 animals. Therefore, Gaushala having upto 100 animals, 1000 animals & more than 1000 animals can be categorized as small, medium & large Gaushala, respectively. It has been analyzed that 50- 55%, 5-10% and 35-45% Gaushalas located in urban, peri-urban & rural area, respectively.

CPCB has issued Guidelines for Waste Management in Dairy Farms and Gaushalas are as follow:

Solid Waste Management

1. Dairies and Gaushalas should collect dung from the floor of the shed at regular interval, so as to keep the floor clean. The surrounding areas should also be cleaned regularly to prevent obnoxious smell in the area.

2. Dairy and Gaushala's premises and its surrounding areas should be properly sanitized and disinfected, e.g. by sprinkling crushed lime, regularly.
3. The solid wastes should be collected & stored properly for its treatment.
4. Dairies and Gaushalas should dispose the domestic hazardous wastes (vaccines, vials, medicines, syringes, etc.) as per the provisions of "Solid Waste Management Rules, 2016".
5. Dairies and Gaushalas should not wash dung & fodder residue etc. into drains in order to avoid clogging and pollution of drains.
6. Dairies and Gaushalas should have adequate infrastructure to ensure proper handling, treatment and disposal of solid wastes and wastewater. They may set-up individual or common treatment facilities within cluster.

Wastewater Management

1. Dairies and Gaushalas should take necessary steps for the judicious usage of water for drinking & bathing of cattle's and other services including floor cleaning, however, the same should not exceed the quantity mentioned in the guidelines issued by CPCB.
2. Dairies and Gaushalas should ensure that the wastewater, being discharged, is adequately treated so as to meet the standards as prescribed by PPCB.
3. Dairies and Gaushalas should ensure that the wastewater does not percolate through ground and pollutes the groundwater. The flooring of the shed should be properly paved (impervious) with a wastewater collection system. However, the floor should not be slippery in order to ensure safety of animals.

Methods and Options available for Disposal / Utilization of Cattle dung

Following options for disposal / utilization of dung can be adopted by Dairy Farms and Gaushalas:

S.N	Gaushalas/ Dairy Farms	Methods For Disposal/ Utilization of Dung
1.	Small Dairy Farms	<ul style="list-style-type: none"> • Composting / vermicomposting, or • Manufacture of dung wood/ dung cake, or • Combination of both
2.	Medium Dairy Farms	<ul style="list-style-type: none"> • Combination of any of three methods for disposal/ utilization of dung.
3.	Large Dairy Farms	<ul style="list-style-type: none"> • Biogas/ compressed biogas production or • Combination with any of remaining method
4.	Dairy Farms in Rural Area	<ul style="list-style-type: none"> • Composting/ vermicomposting, or • Manufacture of dung wood/ dung cake

5.	Dairy Farms in Cluster	<ul style="list-style-type: none"> • Common Biogas/ compressed biogas production, and • Any of remaining method at individual level.
6.	Small & Medium Gaushalas	<ul style="list-style-type: none"> • Combination of any of three methods for disposal/ utilization of dung
7.	Large gaushalas	<ul style="list-style-type: none"> • Biogas/ compressed biogas production or • Combination with any of remaining method

2.0 Background of Issue:

Major environmental issues of Dairy farms and Gaushalas are related to disposal of dung and urinal wastewater. Poor handling & disposal of dung and wastewater causes water pollution & odour problem. Solid wastes produced from Dairy farms and Gaushalas are cattle dung, feed residue, etc. which are organic and non-hazardous in nature but requires proper handling and disposal. Disposal of cattle dung is biggest challenge in dairy farms and gaushalas. However, cattle dung, if effectively utilized, can be a resource of manure & energy. Cattle dung may be used for many purposes i.e. for combustion (dung wood) or for producing biogas or as soil conditioner or as fertilizers or as material for wall plastering, etc.

3.0 Proposal:

In order to curb the problem of water pollution caused by non-scientific disposal of dung and urinal wastewater generated from Gaushalas/Dairies in the State of Punjab, PPCB has proposed to utilize funds of Eco-restoration plan for Eco-management and utilization of cattle dung through vermicomposting, manure making, cattle dung logs/cake etc.. Expression of Interest (Eoi) is, hereby, invited from the interested Gaushalas & Dairy Farms for this purpose. The applications received from the interested parties will be scrutinized and evaluated by the Board. PPCB will provide technical as well financial assistance to the selected Gaushalas and Dairy Farms.

4.0 Scope of Work and eligibility

The applicant shall establish setup for the Eco-management and utilization of cattle dung being generated from Gaushalas/Dairies through vermicomposting, manure making, cattle dung logs/cake etc. in the State of Punjab as per the guidelines issued by the Central Pollution Control Board (CPCB). The project proponent shall have adequate space for establishment of proposed project. The project proponent shall have

adequate manpower/labor and other resources for establishment and smooth operation of proposed project.

5.0 Submission of EoI

Interested Gaushalas and Dairy farms may submit EoI in a sealed envelope clearly superscribed "Expression of Interest (EoI) for **Eco-management and utilization of cattle dung being generated from Gaushalas/Dairies through vermicomposting, manure making, cattle dung logs/cake etc. in the State of Punjab** through registered post to **Member Secretary, Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala-147001**. The prospective project proponents have to submit two hard copies and a CD, containing the following information in a maximum of 20 'A-4' size Pages (excluding curriculum vitae and attachments) and a font size of 12:

- i. Name and address of the Gaushala/ Dairy Farm.
- ii. List of Management Committee/ Director/ partners / proprietor / administrator of Gaushala/ Dairy Farms along with address and contact number.
- iii. Date of commissioning of Gaushala/ Dairy Farm.
- iv. Details of land available for setting up of plant along with proof, if any.
- v. Total area of Gaushala/ Dairy Farm and available area for the said project.
- vi. Registration Copy /Approvals obtained from Government (if any).
- vii. Last year financial statement.
- viii. Detail of total manpower available.
- ix. A brief Project report mentioning following information:
 - Total no. of Cattles/Cows in Gaushala/Dairy Farm.
 - Quantity of cattle dung generation per-day.
 - Present mode of disposal of cattle dung.
 - Quantity of wastewater generation per-day.
 - Present mode of disposal of wastewater.
 - Total space available for vermicomposting, manure making, cattle dung logs/cake etc.
 - Detail of proposed machinery to be installed for execution of project
 - Time period for completion of the project.
 - Total Project cost.

The Project Proponent may also send the EoI through E-mail at eehq1.2@gmail.com.

Note:

1. PPCB reserve the right to scrap the EoI without giving any notice to the project proponent.
2. No legal bidding is applicable to the PPCB.
3. Gaushalas / Dairy Farms shall obtain all necessary regulatory clearances from the concerned departments.