

## Environment News

### Turning The Tide Against Plastic Pollution

To commemorate the 108th Birth Anniversary of our founder, the 52nd Dai-al-Mutlaq, **His Holiness Dr. Syedna Mohammed Burhanuddin (RA)**, and celebrating the 75th Birth Anniversary of the 53rd Dai-al-Mutlaq, **His Holiness Dr. Syedna Mufaddal Saifuddin (TUS)**, students from Taiyebiyah School, Surat undertook cleanup of Tapi River in December 2018. The campaign is aimed at creating awareness while supporting the Swachh Bharat Abhiyaan and actively contributing to turning the tide on plastic pollution.



### What is the polar vortex ?

The polar vortex is a large area of low pressure and cold air surrounding both of the Earth's poles. It ALWAYS exists near the poles. This time, the polar vortex has broken in two, bringing the coldest conditions in decades to the mid-west USA. The temperature in Chicago plunged so low that it was 10 degrees (F) colder than Antarctica.



Scientists are gaining a better understanding of why this is happening, with many identifying climate change as an influence. Scientists point to a complex sequence of events involving sea ice, which is rapidly diminishing in the Arctic.

**Burhani Foundation (India)**

has partnered with



**Indian Biogas Association**

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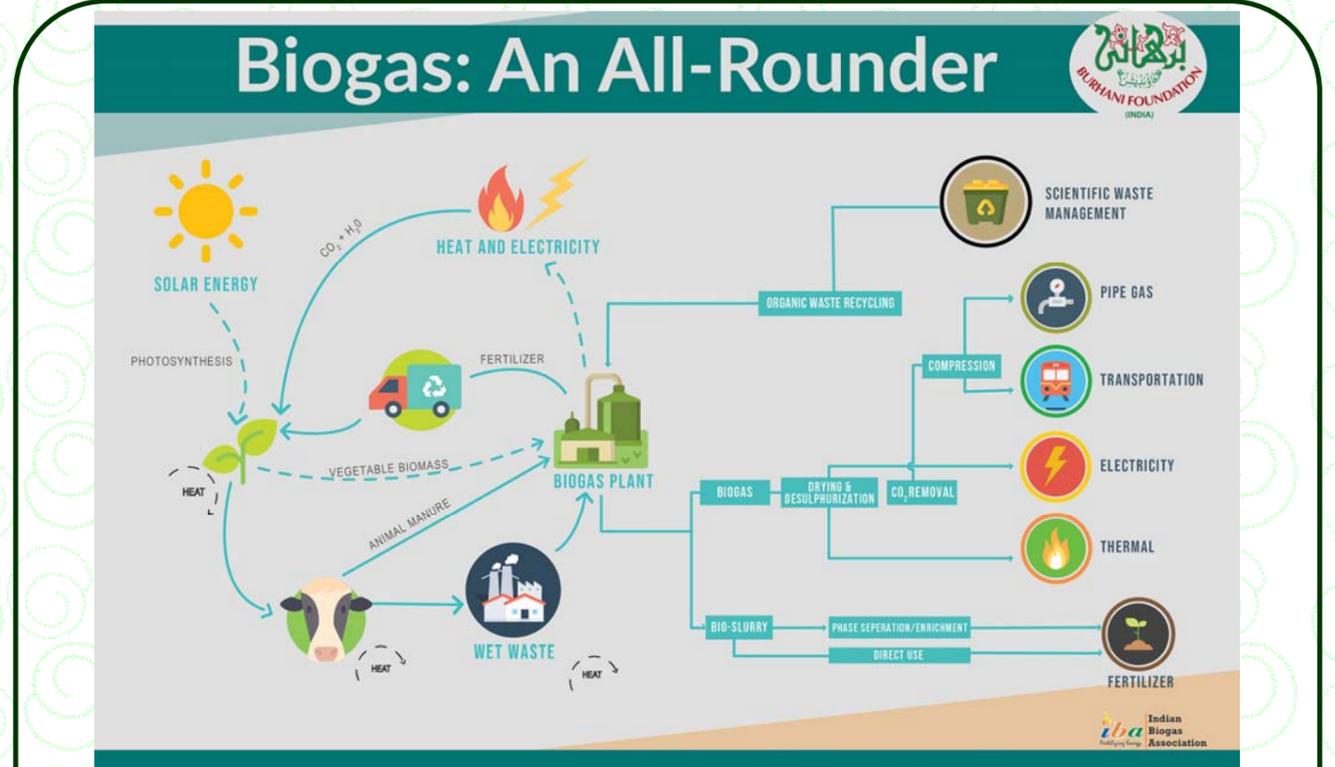
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# Eco-World

Environment Wellness & Lifestyle Monthly Newsletter

Established by H.H. Dr. Syedna Mohammed Burhanuddin (RA) in 1992



### Biogas App

**NEW Upcoming Event**

On 18th Feb 2019, BFI and Indian Biogas Association (IBA) are organizing an event:

**Biogas App Launch: An initiative towards "Circular Economy"**

which shall include panel discussions and presentations by experts of this field.

We invite you to join us for this event. Venue: **IIT-BHU, Varanasi.**

Kindly register at : Time: **10 AM.**

<http://www.burhanifoundationindia.org>

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### Compost for Bio-digester

Continuing with our series of articles on Biogas technology, in this issue let's list out the types of compost, that is used in an anaerobic digester. Compost is a natural fertilizer and a source of nutrients for plants. Although bulky, it supplies nutrients in small quantities but organic matter in large quantities. It is prepared by the decomposition of animal excreta and plant waste.

Type of Compost	Advantages	Disadvantages	Consists of
Farmyard Manure	Long lasting in the soil, nutrient rich	Storage problem, can acidify the soil	Any plant
Green Manure	Adds organic matter to the soil, improves soil texture, leguminous crops add nitrogen	Not nutrient specific	Rice, maize, sugarcane, Cotton and wheat
Compost	Economic and environment friendly waste management, low cost	Waste segregation is required	Fruits and vegetables
Vermicompost	Improves water retention capacity of soil, enhances germination, plant growth and crop yield	Proper environmental conditions have to be maintained for earthworms to thrive	Any plant

#### What is Farmyard Manure?



Farmyard manure (FYM) is the decomposed mixture of cattle excreta along with litter and leftover organic matter such as roughage or fodder. These waste materials are collected daily from the cattle shed and stored in a pit for decomposition by the microorganisms. It contains nitrogen, phosphorus, and potassium.

#### What is Green Manure?

The practice of green manuring includes growing, mulching by ploughing, and mixing of green crops with soil to improve physical structure and soil fertility. Green manures may include both leguminous and non-leguminous plants such as egyptian clover, cluster beans, etc. Such plants are used to add nitrogen, phosphorus, and other organic matter to the soil to improve crop yield.

### What is Compost?

Compost is prepared from farm and town scraps such as vegetable or animal refuse and waste, weeds, crop stubble, clippings, rice hulls, forest litter, etc. Composting is a biological process in which both aerobic and anaerobic microorganisms decompose the organic matter. It takes about 3 to 6 months for decomposition of organic refuse.



#### How is compost prepared?

1. A hole of suitable size (4-5m long, 1.5-2m broad and 1-2m deep) is dug.
2. A layer of well-mixed refuse of about 30cm thickness is spread in the hole.
3. This layer is well moistened by the slurry of cattle dung or soil and water.
4. The second layer of mixed refuse is spread in the hole until the heap rises to a height of 45-60 cm above ground level.
5. The top of this heap is then covered with a thin layer of moist earth.
6. After 3 months, the partially decomposed biomass is taken out and collected in a conical heap.
7. This heap is moistened if necessary and covered with earth. After another one or two months, the compost is ready for use in the field.

#### What is Vermicompost?

The degradation of organic waste by earthworms is called vermi-composting. An earthworm is physically an aerator, crusher, and mixer. Chemically it is a degrader and biologically a stimulator of decomposition. This is an appropriate technique for efficient recycling of animal wastes, crop residues, and agro-industrial wastes.

Vermicompost can be prepared from all sorts of organic wastes, agricultural residues, animal manures, dairy and poultry wastes, food industry wastes, municipal solid wastes, and biogas sludge.

