

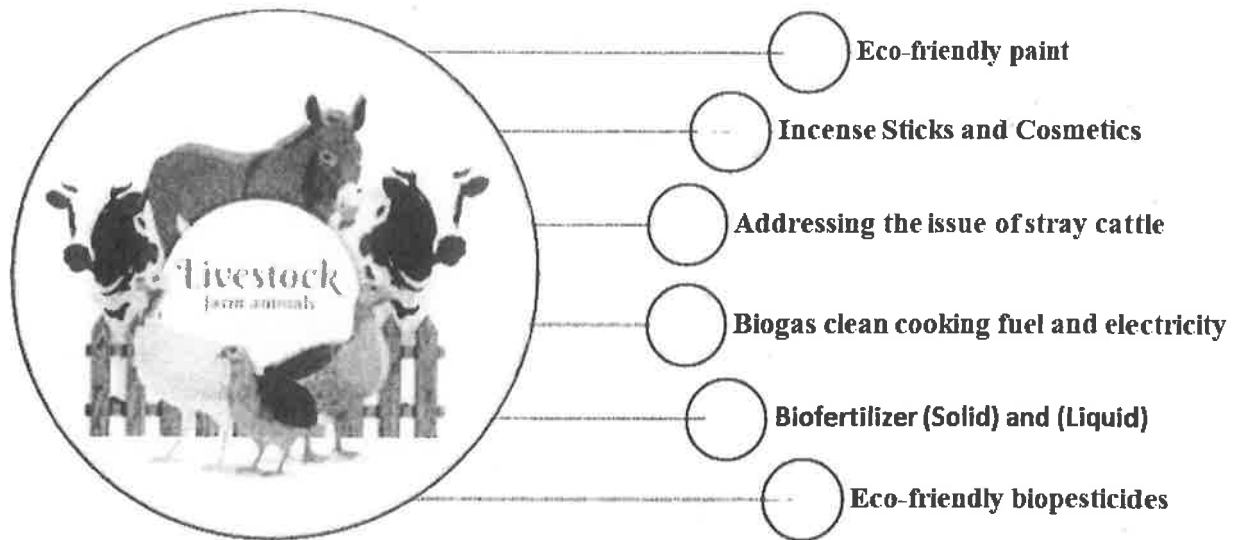
## **Background Note for Constitution of Taskforce on Biofertilizer**

The Finance Minister in her Budget speech of 2020 announced that Government “shall encourage balanced use of all kinds of fertilizers including the traditional organic and other innovative fertilizers.” This is a necessary for efficient use of fertilizer, soil fertility and long term sustainability of agriculture.

A slew of measures and support has been extended to agriculture over the years with to raise income of farmers and achieving sustainable agriculture for supply of safe and nutritious food to our population. . In that regard, the organic waste and biomass produced in farms presents an opportunity to supplement farm incomes and ensure sustainable agriculture. Optimally utilizing the waste in the form of bio-fertilizers and other byproducts has far reaching beneficial implications. This can also help mitigate the adverse effects on the environment and climate change with reduced emissions of methane and nitrous oxide. Third; it helps ease the burden on the state exchequer thereby reducing the revenue expenditure spent on subsidies and imports of inorganic fertilisers.

### **Opportunities**

India has the largest population of cattle in the world. As per the 20th Livestock Census, the total livestock population in in the country is estimated to be 535.78 million, which includes bovine population of about 302.79 million. The livestock sector is at the heart of farmer’s welfare. India’s farmers rely on livestock not only to supplement their incomes but also as it serves as an insurance against price fluctuations and the vagaries of weather. According to the Economic Survey 2020-21, the livestock sector grew at CAGR of 8.24 per cent during the period 2014-15-2018-19. As a result of consistently high growth in milk production the country ctor has become the largest producer of milk in the world. To provide necessary support for its further development, numbers of initiatives and measures have been taken by the government. With such importance and emphasis laid on livestock, it is prudent to complement the diversification of agriculture in an efficient and sustainable manner through the conversion of organic waste into bio fertilizers. Notably, the organic waste from livestock and other farm produce is not merely limited to bio-fertilizers alone. The potential utilization of livestock waste can be in several sectors such as preparation of effective manures/organic fertilizers, biogas, paint industry. Some of the opportunities from using organic waste have been outlined in the diagram below.



While Indian farmers may have benefitted with the use of chemical fertilisers in terms of improved crop productivity, there are significant economic and environmental costs associated with the use of chemical fertilizers in the long run. Moreover, the import dependence on inorganic fertiliser is high and is rising..

### **Economy of livestock and issue of stray cattle**

Farmers in India have been releasing unproductive livestock such as cows and buffaloes because they can no longer afford to feed and maintain them. This is assuming a crisis and is upsetting India's livestock economy, putting the country's farmers in jeopardy. Farmers are losing money due to stray livestock destroying standing crops. Moreover, strong sentiments are attached with cattle and their bio products and there is huge support in the country for appropriate use of bio products of cattle and for supporting institutions which take care of indigenous cattle breeds especially those which are abandoned after their productive life span by the owners. There are a few cases where use of Biogas manure has doubled up the advantage of installation of biogas plants.

Several challenges need to be addressed for ensuring viability of livestock like economic constraints in raising non mulch animals, lack of skilled man-power in the villages to use livestock by-products economically, absence of processing/ conversion technologies,

limited financial support/ subsidy on organic fertilizers and inadequate marketing network and markets for bio-fertilizer and other products prepared from by-product of cattle.

A strong need is felt to enhance use of farm manure especially cow dung in our soils for improving soil organic matter, soil fertility, sustainability and productivity. There needs to be a clear policy for promoting bio fertilizers. This should involve improving nutritive content and value of cow dung, innovations in multiple uses of cattle by-products, attracting private sector to make investment in manufacturing economic products from cow dung and urine, marketing infrastructure and support to fill any viability gap. Proper usage and higher availability of cow manure is also needed to expand organic farming in our country. Further, if sufficient economic value is added to the cattle by products these animals will turn from economic burden to economic asset for the farmers and the country may not face the problem of stray cattle.