Increased demand for food to sustain the ever-increasing world population has led to massive increase in both agricultural and industrial activities throughout the world. Such activities have resulted in extensive degradation of air, soil and water environments. Soil degradation causes decline in soil productivity through adverse changes in nutrient status, organic matter and structural stability.

Various ill effects occur due to indiscriminate use of chemical fertilizers which mainly disturb the soil textures and physico-chemical properties. Useful microorganisms, insects and worms in soil are destroyed. Therefore, attention should be given to conventional system of agriculture free from harmful chemicals and safe food for human consumption.

Vermin-technology is recently popular in conversion of biowastes into nutrient rich organic manures because of its simple methodology and low investment without any sophisticated infrastructure. India is one of the leading producers of banana, which are mostly grown in Tamil Nadu state. After the harvest of fruits the whole plant is left in the agriculture field for natural degradation, which takes several months.

Therefore, in the present investigation an attempt was made to convert banana agro wastes into organic manures through vermin-technology using two species of earthworm. Among two species, *E. eugeniae* showed better results.
The application of 25% of organic manure supplemented with 75% of vermicompost on radish showed higher rate of growth and yield. Hence, the present study concludes that vermicompost could be prepared from banana agro wastes with cow dung and it can be recommended to improve the long-term soil fertility and crop productivity by means of reducing the usage of inorganic fertilizer.