

## **7.3 Institutional Distinctiveness**

### **7.3.1 Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust**

**Response:**

**Soil and Water Testing Laboratory:**

**Vision:**

- 1)"To provide scientific basis to the farmer for enhancing and sustaining productivity of soil resource with minimal environmental degradation and also sustaining higher crop productivity and better soil health through basic research and technological interventions” with following objectives.
- 2) To carry out basic and strategic research on soils especially physical and chemical processes related to management of nutrients and water.
- 3) To develop advanced technology for sustainable systems of input management in soils which are efficient and least environmental polluting.
- 4) To develop expertise and backstop other organizations engaged in research on agriculture and soil environmental concerns.
- 5) To exchange information with experts engaged in similar pursuits through group discussions.
- 6) To collaborate with State Agricultural Universities, National, International Research Organizations in the fulfillment of the above objectives.
- 7) To develop database repository of information on soils in relation to quality and productivity.

**Priority**

- 1) To accomplish the vision of the Lokmangal Science and Entrepreneurship College, Wadala – it gives the highest priority to soil health issues faced by farmers is based on “Farmers' First”. It would concentrate on the following key areas.
- 2) The institution has static lab and mobile soil testing van to find out soil health. For this the labs are functioning from the year 2015 to till the date and about **42895 soil samples** have been analyzed from Solapur and Osmanabad region.
- 3) To find out the impaired soil quality due to the deterioration of soil physical and chemical conditions, low organic matter and increased level of some nutrient deficiencies were the main factors lowering the productivity of major crops.
- 4) To find out the carbon appropriations in the context of sustainable management of land and soil resources.
- 5) To suggest the importance of organic farming in certain areas for selected crops.
- 6) Improving applied nutrient and water use efficiency in different production systems.
- 7) Needs to have a supposed understanding about the cause and effect relationship in soil and food contamination with heavy metals and pesticides to suggest explanatory options.

**Laboratory Goals**

1. Enhancing nutrient use efficiency
2. Enhancing water use efficiency
3. Enhancing and sustaining soil and produce quality
4. Climate change and carbon sequestration
5. Minimizing soil pollution

**Thrust area of Laboratory:**

As per the soil testing report farmers were recommend to utilize efficient organic wastes and indigenous minerals. Farmers were suggested to use optimum fortified fertilizers to avoid the formation of barren land/farms. Efficient laboratory facilities should be utilized for multidisciplinary research and national as well as international collaboration for conditioning the soil health significantly. For maintaining the soil biodiversity and ecosystem, the excess use of chemicals/xenobiotics as fertilizers and pesticides should be avoided. These sustainable practices would work for bioremediation and phytoremediation to avoid soil and water pollution efficiently.