4. RESEARCH ENVISAGED

4.1 RESEARCH NEED

Literatures supports that herbs have potential to cure CNS disorders or illness. Indigenous drugs are day-by-day increasing in various forms of formulation.

As per Professor Mohammed Ali, Jamia Hamdard, market of herbal drugs is growing due to least toxicity, safety, efficiency without side effects. The world flora is renewable, non-exhaustive source of bioactive components.

As per *International Arogya 2017*, India is the second largest producer of medicinal herbs with 6600 medicinal plants. It almost called the botanical garden of the world. It produces 70% of herbal medicines across the globe. The pharmaceutical companies like Himalaya, Zandu, Dabur, Hamdard, Patanzali etc. are already involve in herbal drug manufacturing. In India, there are around 25,000 plant-based formulations available which have been used in folk medicine. India having 8610 licensed herbal units for manufacturing of formulations.

Indigenous plants have great potential, to treat other diseases, disorders and CNS illness although problem is the reproducibility of results.

Therefore, proposed work will results into a mile stone in establishing the pharmacological activities of indigenous plants for CNS disorders and make a ground for commercialization and global acceptance of both plants in CNS illness healing.
4.2 PLAN OF WORK

In order to achieve these objectives following studies have been undertaken:

1. Exhaustive literature survey.
2. Selection of plants based on their ethnomedical/traditional uses.
3. Collection and authentication of plants.
4. Preliminary Phytochemical Screening
5. Acute toxicity study LD$_{50}$
6. Pharmacological Screening by using:
   - Hemidesmus indicus L.
     - Stem (ethanol and water extract)
     - Leaves (ethanol and water extract)
   - Lantana camara L.
     - Stem (ethanol and water extract)
     - Flowers (ethanol and water extract)

Followed by CNS activities:
   a) Analgesic activity
   b) Anti-inflammatory activity
   c) Anti-pyretic activity
   d) Central/skeletal muscle relaxant property
   e) Anti-convulsant activity
   f) CNS stimulant or depressant activity
   g) Anxiolytic activity
   h) Sedative-Hypnotics activity

7. Computation of data.
8. Summary and Conclusion.
9. References
10. Publications