# CHAPTER 3

## SCOPE OF INVESTIGATION

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The present study was carried out with the broad objective of "**Modification of cereal, millets and buttermilk based fermented drink ambil and studying its organoleptic qualities, probiotic profile, consumer acceptability and market potential"** and investigated under the following stated scopes, as divided in four phases:

**Phase I: Acceptability of FOS added cereal and millet based *ambils* with different flavors in terms of various organoleptic attributes and overall acceptability using composite score.**

- Organoleptic properties of FOS added rice *ambil* and barley *ambil* with different flavours
- Organoleptic properties of FOS added pearl millet *ambil* and finger millet *ambil* with different flavours

**Phase II: Probiotic profiling of buttermilk and modified *ambils***

- Morphological characteristics of the bacterial colonies
- Isolation of Bifidobacterium strains from buttermilk, rice, pearl millet, barley and finger millet *ambil*s.
- Isolation of Lactobacillus strains from buttermilk, rice, pearl millet, barley and finger millet *ambil*s.

**Phase III: Physicochemical properties, nutritional composition of buttermilk and ambils and shelf life of fresh and packaged *ambils*.**

- Physicochemical properties of buttermilk, fresh ambils and packaged rice ambil

- Nutritional composition of buttermilk, fresh ambils and packaged rice ambil
- Changes in nutritional composition before and after UHT treatment and packaging
- Shelf life of fresh ambils in terms of physicochemical properties, organoleptic evaluation and microbial changes.
- Shelf life of packaged rice ambil in terms of physicochemical properties and organoleptic evaluation

**Phase IV: Consumer acceptability of packaged ambil and its market potential**

- Frequency of consumption of curd/buttermilk, fruit juices and probiotic beverages by consumers
- Consumer acceptability for packaged rice ambil
- Market potential for packaged rice ambil in terms of idea and need of the product, expected cost, desirable flavours and package size of packaged rice ambil