3. Scope of Work

Despite long-term experience of iron fortification, no large-scale iron fortification intervention has been spotted in the beverage industry. Coffee in this respect has been largely ignored as a vehicle of fortification and there is a lack of studies addressing its use as a vehicle for fortification of micronutrients. Also, fortification of beverage that normally does not contribute micronutrients to the diet is a form of value addition. Coffee has the advantage of isolating the iron fortificants from the anti-nutrients present in a normal diet. The wide distribution of coffee drinking impacts a broader demographic population than other foods that act on a more defined population. It also offers the advantage of relatively constant daily intake and is one few regularly purchased food items with central production throughout the country. Coffee being consumed by middle aged women can be used to favor.

Reduction of anti-nutrients in food vehicle in development of a fortified product for improved iron absorption has not been investigated. Also, irradiation as a means to reduce anti-nutrients has not been studied in coffee beans. Iron deficiency in middle aged women is largely ignored, although it has been proven to have huge domestic and social impact. Therefore, the aim of the present study is to test the suitability of coffee as promising food vehicle for iron fortification with the target population being middle aged women.

The deliverables of the work taken up will be an iron fortified instant coffee powder mix with high bioavailability suitable for treating iron deficiency anemia among middle aged women; impact of irradiation on anti-nutrient levels and their action in coffee beans and spray drying and freeze drying technology for production instant coffee powder mix.