Methodology

Type of Research:  
Most of our research is of the quantitative nature. The research problem taken by us was the effects of factors like GDP, population and literacy rates etc. on the demand and supply of nutritional or “healthy food”. Healthy food are the foods which contains nutrients one need to maintain health, feel good, and have energy. These nutrients include carbohydrate, protein, fats, vitamins and minerals. Carbohydrates, proteins and fats are major energy giving nutrients with carbohydrates and proteins giving about 4kcal/g and fats giving about 8.8 kcal/g. Still its important to see the protein and fats level separately in a diet. This is because human body requires a certain amount of protein level for the growth of their bodies. Additionally, diets containing fats above 30% results in unwanted health conditions like high blood pressure etc.

Though food consumption is highly depended on the MPCE level of the family, it has been ignored here due to the following reasons:

* It has been regularly covered by GoI in their annual NSSO reports.
* Main aim of this report is to see the effect on total nutritional food demand and supply rather than individual income group analysis.

Geographic coverage:

In terms of geography, we first analyzed the supply and demand of nutritional food in India as a whole. Secondly, we analyzed state wise intake of calorie(kcal), protein(gm), fat(gm) as of the 68th round of NSSO report on “Nutritional Intake of India”, i.e. for the years 2011-12. Moving over to the supply side, we have also analyzed the estimates on production of major livestock products in the year 2016-17. To see how the nutritional intake levels depends on various levels of poverty, we plotted a scatter plot of time versus levels of intake.

Population coverage:

The Production index of food and livestock are regressed upon the population of India for the time period 1961 to 2016, to see whether increase in population results in any actual increase in the production levels of food and livestock.

Regressions:  
Besides various time series and comparative analysis, we have regressed the supply of food and livestock on various factors, which are detailed below. Moreover, demand of Cereals and pulses is also regressed on upon these factors. Non veg consumption has been exempted from this analysis due to the following reasons:

* Data is very scarcely available.
* People eating flesh products replace the proportionate intake of pulses and dairy products. Thus, analysis of both the food groups are assumed to be approximately same.

Regressions:

1. *FPIt= β0+β1(GDP per capitat) +β2(log (Population)t) +β3(Rainfallt)+ µt*
2. *LPIt= β0+β1(GDP per capitat) +β2(log (Population)t) + µt*

**Note:** FPI – Food Production Index, LPI – Livestock Production Index, GDP – Gross Domestic Product

Time covered:  
Due to the inconsistent data available time covered over different analysis is different. Where the supply data was available from 1961 to 2016, the food demand data was available decade wise from 1951 till 2001 and then yearly thereon till 2011.