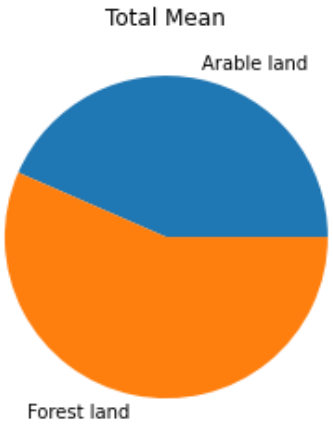
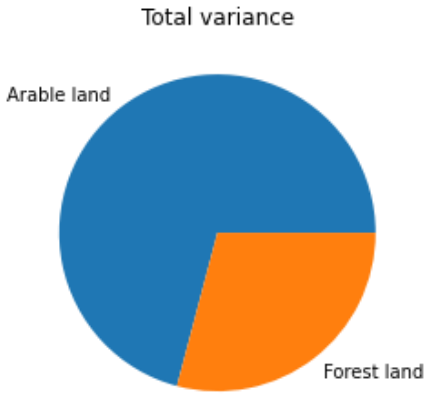
Analysis of Arable land and Forest land 2000-2015

We consider two datasets which has taken from the World bank data which includes the data regarding the percentage of land area of Arable land and Forest land. Arable land is termed as the land area suitable for the production of seasonal as well as permanent crops. Each datasets contain the range of data of different countries drasting over the years.The datasets are having one with years as coloumns other with countries as coloumns. Here we are considering 12 different counties with different environmental economic status from a period of 2000-2015 from both the datasets. A substantial analysis has conducted. The correlations found and the most interesting factors are discussed below.



Here the mean of both the datasets is compared. As we can see the total mean of arable land out of the total countries shows a contrast with the total forest land. The countries with highest mean for arable land are also recorded in which India have an highest average and the countries with highest average in forest land area are marked as Canada. From the figure we can understand that the percent of forest land is in prime as with the arable land



The variance of the datasets is compared.It is clear from the figure that the variance for arable land area is as much as higher than the variance for forest land area. The highest variance for arable land area is for Italy and for forest land area it is assigned for serbia. The large variance indicates the data provided are far away from the mean and each other also.Thus the data with the arable land are comparitively highly varing through these years.

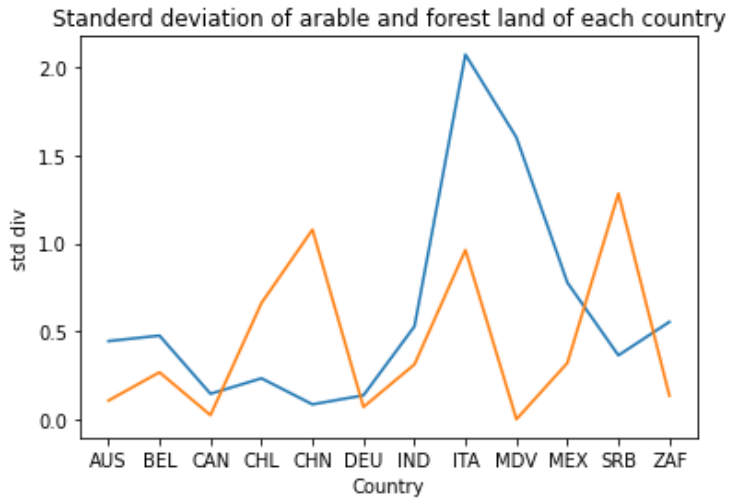
The standard deviations of arable land area and forest land area are find out and assumptions are made.

The list containing the final values are arranged in descending order. For arable land area,Italy is strictly deviated which is followed by Maldives and Mexico. Here China and Germany are hardly deviated as which means they are mostly clustered around the total mean.

The list containing the values of Forest land area are sorted in descending order, the value of Serbia is found to be higher as compared to the others.Maldives and Canada are least in the list.

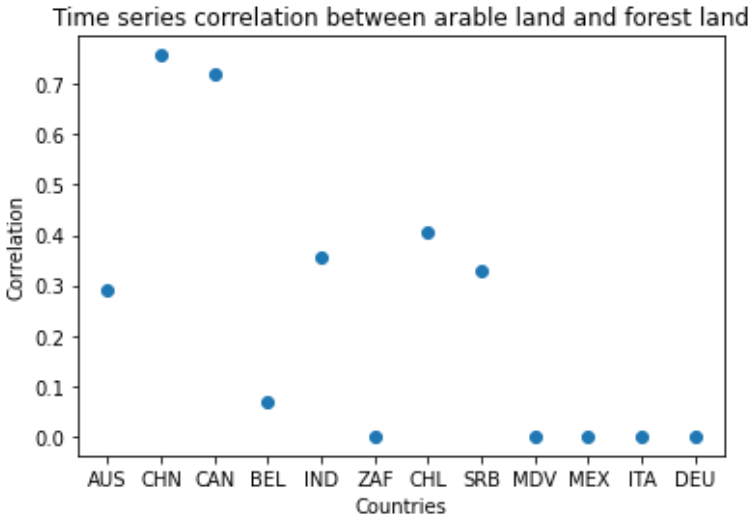
As an assumption made by the sorting,listing and taking the average of standard deviation of both the sets,we can say that the percentage of land for arable area is comparitively deviated high and this shows

the extinction of arable land area is slowly and badly progressing.The facts regarding the standard deviation is picturised through a plot which is shown below.



Correlation factors are also find out to make these datasets more acceptable.In the case the data between arable land area and forest land area are scarcly correlated. South Africa followed by Canada and Mexico shows a highly perfect positive correlation whereas Maldives and China are least correlated. The Countires like Belgium ,Italy shows a negative correlation which means as in certain time of period they move in opposite direction in their values for the arable and forest dataset.

Here both the datasets are lined in a period of time,we can also go through the time series correlation of both the datasets.The time series are termed random,it may continuosly ordered upon a time series showing a probablity of some correlation between the observations or maybe disordered due to the variations in observations. China is mostly correlated among the countries.The time series plot is created and visualised and shown below,



Thus these assumptions are made stating that the serious extermination of arable land is found out as compared up to the forest land area.