that the assumptions may not be true and the projections may turn out to be incorrect.

Importance of Population projections:

1. For Economic Development
2. For Social Development
3. For Business classes
4. For Demographic Theory
5. For Planners
6. For Migration trends in future
7. For Planning Adequate Investments.

Population estimates are required at national and regional level.

—x—

total population, maternity deaths etc. are ~~estimated~~ estimated. Moreover, public health and medical facilities are also taken into consideration.

For making projection of migration, the past trends of emigration and immigration and changes in the rules of migration in a country and the other country are used.

Thus, by calculating separately the effects of birth rate, death rate and migration by age sex group in each case, the projected total population is estimated by their summation.

The correctness of growth component depends upon the assumptions made about birth rate, death rate and migration rate. But there is every possibility

III Growth Potential Method

This is more practical method than first two. The Growth Component Method is also known as the Cohort component method, makes separate projections for birth rate, death rate and migration by age-sex groups.

In making projections for the birth rate by age sex groups, the effects of fertility rate in females, marriage and remarriage rate, socio-economic factors of sterilization, Education, divorce, net production rate etc on the birth rate are taken into account.

Similarly, for projection of death rate, the Infant Mortality Rate, expectation of life at birth, the ratio of aged in the

b) The projection of pop. is done on the assumption of growth rate of past and the prevailing situation will remain same in future too. But actually this is not possible. Situation or condition change with time. then this method fails to give real picture.

c) This method fails to give projections about birth rate, death rate and migration because it assumes them as constant.

d) Socio-economic condition do play their role to affect growth rate of population which is ignored in this method.

Geometric Method

$$P_p = P_1 (1+r)^n$$

P_p – Projected population

P_1 – Population as per the recent census

r – Annual rate of increase or decrease of population.

n – Number of years

This formula is the basis of Malthus's population projection. It can be easily calculated like geometrical progression & the compound interest.

No doubt these two methods are widely used but has certain limitations.

a) It is neither an adequate nor a complete method of pop. proj. to give information regarding age-group.

$$P_p = P_t + \frac{n(P_1 - P_2)}{N}$$

P_p – Population Projection in the future

P_1 – Present population as per the recent census (e.g. 2011)

P_2 – Size of population in the previous census (e.g 2001)

P_t – Total Population

n – Number of years between the projection year and the previous census

N = Total number of years between the recent census and previous census

Population Projection Techniques

Population projections are calculations of future birth rate, death rate and migration of population based on their past and present conditions. They are in general purely formal calculations, developing the implications of assumptions that are made. Projections are done for a long term.

Methods of population projections

I Mathematical Method

II Growth Component Method

III Economic Method

I. In Mathematical Method it is assumed that the annual change (increase or decrease) in population remains the same throughout the projection period and the crude birth rate and death rates are taken.