

**"A STUDY OF POPULATION EDUCATION AWARENESS OF
COLLEGE STUDENTS AND STAKE HOLDERS'
PERCEPTION TOWARDS INCLUSION OF
POPULATION EDUCATION IN THE
DEGREE CURRICULUM".**

**Thesis submitted for the Degree of
DOCTOR OF PHILOSOPHY
of the
UNIVERSITY OF GAUHATI
in the
FACULTY OF ARTS**



By

Bhaswati Baruah Das
Department of Education
Dispur College
Dispur, Guwahati-5
2008

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This is to certify that the Thesis "A STUDY OF POPULATION EDUCATION AWARENESS OF COLLEGE STUDENTS AND STAKE HOLDER'S PERCEPTION TOWARDS INCLUSION OF POPULATION EDUCATION IN THE DEGREE CURRICULUM", Submitted by Mrs. Bhaswati Baruah Das, Sr. lecturer, Dispur College, Guwahati embodies the result of her original work and personal investigation, carried out under my supervision and guidance. She has fulfilled all the requirements under the relevant rules of the Guwahati University by submitting the thesis. The Thesis as a whole or any part thereof has not been submitted for any research degree elsewhere.

I am happy to recommend this Thesis for submission and award of Ph.D. Degree.

Date...6 Aug, 2008

SWARNALATA DAS

Dr. Swarnalata Das
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A C K N O W L E D G E M E N T S

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Date : 6th August.
2008.

Bharuah Das
Bhaswati Baruah Das.

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CHAPTER-I
INTRODUCTION

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1.1. Introduction:

Population education is a new concept for the entire world. The reason for its origin and growth is the rapid increase of population. The increase in population has posed a serious problem for the entire world because it has an adverse effect in the national and international life. Increase in population not only affects the progress and prosperity of a nation, but it also affects the international security and world peace. In fact entire human race is in danger due to the unprecedented increase in the population. Educationist & thinker Dr. Lulla and Dr. Murthy are of the opinion that, "The most serious problem of the population explosion has plagued the world in our times".

Population explosion is now one of the most fundamental problems of the world, especially for the developing countries like India. It is not only economic growth and standards that are threatened by rapid growth of population but also the quality of life as a whole.

In India, the increase of population is much higher than other countries of the world. According to the census of 1991, the population was about 846.30 million and at 2001 it is 1,027 billion. In our country a child is born in every one and half second. About 210 million children are born in a year and the population of the children below the age group of 15 is about 42% of the total

population. Every seventh person of the world is an Indian. About 14% of the total population of the world resides in India, while we have only 2.4% of the total land of the world. The population of the country which was 36 crore in 1951, is now around 110 crore and trends indicate that it would touch 140 crore by 2026, making India the world's most populated country.

Realizing the negative effect of rapid population growth on development, many developing countries have launched family planning programs. The Government of India also has taken certain concrete steps for the family planning. The success of family planning programs in some countries such as China has been significant in terms of reducing the rate of population growth due to its stringent policy and literacy of people (Literacy rate of China Male=95.1% & Female=85%). But in India where most of the people are illiterate (Literacy rate of India, Male=73.4% & Female=47.8%) the success of family planning has not been as significant like China. So we need a concrete programme of population education, which may be properly implemented.

It now, therefore has been realized that family planning programs should be supported by formal education about awareness of population problems so that right attitude are developed at an early age to take rational decisions. The children of today are the parents of tomorrow. Thus population education may be a relevant and motivational tool that will inject these new entrants with a desire to adopt family planning as a way of life. It is through population education that we may strengthen and enlarge the area of commitment towards checking population growth by developing right attitudes amongst the vast population which has already attained or yet to attain fertility age group.

1.2. History of population education.

Population education being a new concept has a relatively short history. The first attempt to voice the need for population in education was made, perhaps, by Ava Myrdal in 1941. In her book "Nation and family" she tried to convince the Govt. of United States of America that a conscious population policy was essential to realize the social policy. She emphasized on the role of education in the development of new population policy and referred to such education as a family education. For two decades nothing significant could be achieved by the inclusion of population content in curriculum. The March 1962 issue of Teachers college record, Columbia University carried an article by Warren S. Thomson entitled "The population explosion" and another article, "population-Gap in the curriculum" by Philip M. Hauser. These articles helped to draw attention to the need of the inclusion of population content in the school curriculum.

In 1964, under the leadership of Prof. Solan Wayland a project was undertaken at teachers college, Columbia University, to prepare instructional materials related to population education. The out-put of this project were two documents entitled as teaching population dynamics and critical stages of reproduction. These were designed as prototype materials for the pre-service training of secondary school teachers.

Though some efforts were being made at the individual level for introducing population content in the curriculum, it is the United Nations, through its body organization like UNESCO, took keen interest and initiative

in this direction. The first director General of UNESCO, Sir Julian Huseley, in his annual report of 1948, emphasized the problems of over population & related effects on erosion and depletion of natural resources etc. He expressed his opinion as that, **“Population must be balanced against resources or civilization will perish.”** He also suggested that UNESCO’S task must include educating the people of the world to realize the gravity of problem involved.

UNESCO’S General conference declared in 1968 that the purpose of UNESCO’S activities in the field of population should be to promote a better understanding of the serious responsibilities which population growth imposes on individual nations and whole international community. In 1970, it authorized the director general to assist member states to formulate their population and family planning policies and in 1972, it recommended that the Director – general should promote clearer insight among the public into the nature, causes and consequences of demographic trends by means of education and information. The general conference of UNESCO at its seventeenth session adopted the resolution 1,221 authorizing the director general to pursue and undertake activities designed for the promotion of population education.

A workshop was held at Bangkok in September-October 1970 on population and family education, sponsored by the UNESCO regional office for education in Asia. Educators from thirteen member states in Asia addressed themselves to task of preparing a statement of objectives for population education. A joint strategy was formulated for organizing programs and outlining the content for incorporation into school curriculum in the social science and the natural sciences. A set of draft sample instructional materials was prepared in the subjects of mathematics, science and social studies.

Though it was slow initially, population education picked up its pace during seventies. Five Asian countries launched their national programs of population education after the 1970 regional workshop with the technical support of UNESCO, and financial assistance of United Nations fund. By 1988 about twenty five countries in Asia pacific region started population education programme in their countries.

India was among the first countries to introduce population education in its educational system. The family planning association of India presented a memorandum to the Maharashtra Government urging it to introduce such education and due to which the Maharashtra Government published a white paper an educational reconstruction in April 1988.

The proposal was based on the concept that, the education system could be made a "powerful instrument of National Development" by providing a basic understanding of the dynamics of population growth and now it would affect the daily life of people in National welfare. The memorandum advised to exclude specific birth control methods and techniques and sex education for the educational programs. The first national seminar on population education was held in Bombay in the year 1969 which started the process of introduction of population education into the school system. Since 1980, it has been launched as a National program under the banner of the National population education programs by the Ministry of education with the financial and technical assistance of the UNFPA.

The NCERT is the executing authority for the National population education program. During its first cycle it has institutionalized population education in the formal school and teacher training systems. During the seventh five year plan, the program was expanded to non-formal education, adult education and universities.

In 1983, Government of Assam set up a population education cell at State Institute of Education, Jorhat to implement the National population education project (NPEP) initiated by National Council of Educational Research and Training (NCERT) to institutionalize population education in Indian educational system. Since then, different programs had to be incorporated in the school system of the states. The main objective of these programs is to create awareness among the budding generation about different issues relating to population i.e. population and sustainable development, gender equality, equality and women empowerment, adolescent reproductive health, family health, population distribution, urbanization and migration.

The population education cell had arranged different types of co-curricular activities on issues related to population education for the students in different districts, also engaged in research works.

1.3. Some implications of rapid population increase.

World is witnessing a rapid population growth making it difficult for the developing countries to provide food, education, employment, housing and health to the people. The quality of life is also hampered due to this rapid

growth of population which also affects the social and economic life of the country.

Population growth and health.

Persistent high fertility causes important health problems not only because economic improvements which are essential for good health get restricted but also because it poses an immediate health problem for mother and child. Repeated pregnancies cause nutritional deficiencies among women and increase the risk of maternal mortality. Due to frequent pregnancy there is a curtailment of breast feeding and infant care which in turn increases the high infant mortality. Due to high number of children in a single family there is shortage of quality food causing stunted and under developed physical growth among them.

Population growth & food supply.

Rapid population growth has created a huge gap between the need and the supply. The rate of population to food is far below the rate of growth of population thus creating a widening gap between the two. Inadequate food supply has led to growth retardation and high mortality rates from malnutrition. Retarded development and poor health are responsible for low stamina and hence low physical activities, resulting low productivity which in turn causes inadequate food supply.

According to the studies by United Nations food and agriculture organization, there is a need to increase in production of foods. This can be achieved only by increasing the productivity of the cultivable land to achieve higher yield per hector of soil.

Though many developing countries have made steady progress of increase in productivity and thus increasing their food supply, the per capita food consumption has not increased to the desired level due to rapid population growth. Malnutrition is the biggest cause of child mortality in developing countries, so it is seen that it is not only the increase of production but the control of population is most important for adequate food supply.

Population Growth and Employment.

Employment is another sector which is affected largely by rapid population growth. The sharp increase in the working population is mainly due to the growing number of young people and increase in the length of the working life as a result of decline in mortality. The need for expanding employment opportunities for growing number of young people has become very urgent. The decline in birth rate is desired to offset the growing employment needs.

Population growth and Housing.

The housing demand of the country is affected by various demographic factors like the size of population, changes in fertility, mortality, migration

and family formulation. Rapid growth of population creates more demand of housing which is already in a short supply in the developing countries.

The shortage of housing and demand for more houses are mostly in the lower income groups of population. Due to this nearly 30% of urban population live in slums.

Due to various factors like employment opportunities etc. there is a constant flow of rural population to the urban centers. This is due to the rapid increase in population and related problems of lack of jobs, education and lack of opportunities in the rural areas. This tends to hamper the economic growth of the country as more investments are required for the urban centers like providing transport, housing, drinking water, sewerage disposal, sanitation, electricity and other social services.

The rate of development of the countries had to be increased to keep pace with the growth of population which is a very difficult task. The developing countries are economically backward with its population having a higher dependency ratio on their government, high unemployment and under unemployment and low level of literacy making it very difficult to develop these countries. Hence a reduction of rate of population growth is the only effective way to reduce the burden of providing housing to the population.

Population growth and education

One of the major problems of rapid growth of population is that of providing schooling to the growing number of children. Though many

developing countries have taken up sizable number of educational schemes to eradicate illiteracy and thus increasing the enrollment ratio of school going children, they have not, succeeded in keeping pace with the increase in number of child population.

The educational problems are not confined to the young people only, as more than one third of all the adults are illiterate. Unless adult education programs are not taken up vigorously, these numbers will increase due to rapid population growth.

Up gradation of country's human resources through education can be achieved more quickly and at less cost if the birth rate of the country can be lowered.

1.4. Growing demands for population education:

The most fundamental problem that mankind faces to-day is that of population growth. Charles Darwin in his famous book "**The origin of the species**" made the following observation.

"Even slow-breeding man has doubled in twenty five years, and at this rate, in less than a thousand years, there would literally not be standing room for his progeny."

This statement would have thrilled the people of his generation but later events undoubtedly have proved that he made an underestimation in his

observation. The population situation has worsened especially among developing nations and many of these countries are now growing ten times as fast as they did a century ago.

The population scene is very bleak for the developing countries of the world and especially for those in Asia which is very alarming as these countries constitute more than half of the world population.

The increase of population in India is much higher than that of other countries of the world. The evil effects of the increase in population in our country can be seen in our individual, social, political, and economic spheres of lives. Though there has been an increase in our national income yet the standard of living of the poorer section of society is falling down day by day. Crores of people are living below the poverty line. There has been a rapid increase in number of unemployed youths. All the progress made in the field of agriculture and industry is unable to bring fruitful results due to the growing population. In the report of NCERT it is stated that: "The ever-swelling numbers seen to undermine, all plans of qualitative improvement."

The developing countries of the world are bent upon curbing the birth rate through national family planning programs. Almost two billion people i.e. 79 percent of the total world population live in countries where there is some Governmental support to family planning. But the success achieved by them has been of a limited character. However in India, due to various reasons, the progress of family planning programs has not been satisfactory. So far it has been recognized through out the world that the married couples should be

the first target, for family planning measures as they contribute immediately to the growth of the population. But we should not lose sight of those young people who are on the threshold of married life and those who would enter the reproduction scene within one or half decades. For, it is the critical behavior of these people that will ease or worsen our population situation. Attempts are therefore being made to bring these people under the fold of new population philosophy by injecting in them some awareness about the population problem so that, they may rationally think about their future and take correct decisions on population matters when the time for such momentous decisions in their lives come.

The population situation is not the sole concern of developing countries like India which are faced with “population explosion” caused by ever-widening gap between static birth rates and rapidly falling death rates. But the developed countries like U.S.A. are also giving serious thought to this problem by educating children and youth in population matters.

In the developing countries the problem of growth is to be controlled by a two-pronged attack.

- 1) The family planning methods in which the targets are the eligible couples in the reproductive span, and,
- 2) Children and youth who are likely to enter the reproduction field in a period of one or two decades from now.

Thus a new field of study has been opened which is presently known as "population education" which offers immense possibilities in easing the problem of population in the long run.

In the national seminar on "population education" held at Bombay in August 1969, the members were of the opinion that growth of population was a major challenge before the country and that population education should be an integral part of education at all levels.

Dr. Lulla and Dr. Murthy are of the opinion that "No thoughtful person can ignore the importance and need of population education in the context of modern times."

The delay in the introduction of population education into the educational system in India as well as in other developing countries is a matter of grave concern. Gradual introduction of this new area of educational field is the greatest national urgency. A little delay intensifies the problem related with the growth of population. In this connection Prof. Jayasuriya remarks:

"As needs can be postulated with varying degrees of seriousness, it is important to emphasize that population education is a matter of greatest urgency, in that the risks to the conduct of civilize life involved in the complex of problems associated with the growth of population are of such magnitude that every single day's delay intensifies them and increases the effort that has to be made to cope up with them."

Rapid growth of population presents an issue of momentous significance for the mankind. Educational systems that make some claims relevance to human issues can not ignore it. This is the reason why Noel-David Burleson of Harvard University urged the inclusion of population education in the school curriculum.

Warren S. Thompson and Philip M. Hanser were the first to insist on incorporation of population education into the school programs. In fact, Philip M. Hanser lamented this population gap in the curriculum and exhorted that, **“information about population should be regarded as an essential part of a general education.”**

At the National seminar on population education held in Bombay in 1969 the then education Minister Dr. V.K.R.V. Rao in his inaugural speech gave a very broad view on population education when he said, “Population education is a subject by itself and should essentially be treated as a part of the much larger subject of human resource development and be included in the educational framework in the light of this opinion.”

In the developing countries where the rate of growth of population is very high, the needs for small family norm are the most urgent. So the growing demand for inclusion of population education in the curriculum has increased. Thus as Smt. Avabai B. Wadia, president, family planning Association of India says, “This new philosophy of living, based on the ideal of planned families, where there is concerned not only for individual well-being but for the welfare of society as a whole, is becoming essential,”

The growing demand for introduction of population education in the school curriculum is also made on the ground that **“over 45 percent of our population is under 15 years of age”** and it is this group that will strongly influence the demographic scene of the country in the next few decades. It is the reproductive behavior of this section of people that is of paramount interest for the progress of the country. The future growth of our population will depend on attitudes and behavior pattern which this group will acquire during the period of their education. If these people become cognizant of the factors of their population situation, and feel that a more rational behavior on their part is expected by the community on family size matters, then the worst consequences arising from population growth may be avoided. John Alderson touching this important point in respect of developing countries states that,

“These young people will constitute the major portion of the adult population of the world in the next three crucial decades, and their reproductive behavior will be of central importance to the efforts to control the rate of population growth.”

1.5 Background Perspective of the study— ASSAM.

Assam having an area of 53.226 sq. miles is situated in North-Eastern part of India. Well known for her rich and diversified cultural heritage and abundant natural beauty geographically, it lies between latitudes twenty two and twenty eight degrees north and between longitudes eighty nine and ninety seven degrees east.

People of different origin came to Assam and over the years they mingled with the aboriginals which resulted in shaping of a new composite culture. Assam was ruled by Ahoms for six hundred years. It was also ruled by Kochs and others from time to time. During this period it successfully resisted the attacks by Turkey-Afghan and Mughal rulers. From the year 1826 it came under British rule. Since 1857 mutiny, Assam has actively taken part in the national freedom struggle and ever since independence; it is contributing towards the growth and development of our great country.

In ancient times Assam was known as "Pragjyotispur" and later on, it came to be known as Kamarupa. Due to the unavailability of authentic historical materials very little is known about its past before the 4th century A. D. when Barmans ruled Assam. The earliest known kings of Assam, like Narakasur, Kumar Bhaskar Barman, Sukapha, Rudrasingha, and Naranarayan ruled Kamrupa Assam at different times and contributed towards the growth of Assam of our times. Besides them, great generals like Chilaray, Lachit Barphukan, etc. and various saints and seers like Sankardev, Madhabdev, etc. adorned the pages of history.

Assam is situated in the North eastern part of India and bounded by hill states of Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, and Meghalaya, besides the Himalayan Kingdom of Bhutan on the North. It is in the vicinity of countries like China on the North, Myanmar on the south and east and Bangladesh on the west. Physically Assam is divided into two valleys- The Brahmaputra valley or the Assam Valley and the Surma valley or Barak valley. The Brahmaputra flows majestically through the heart of the Assam

valley. Another river with its tributary, the Barak, flows through the surma valley. The Brahmaputra valley is an alluvial plain comprising the present Districts of Bangaigaon, Dhemaji, Goalpara, Dhuburi, Kokrajhar, Barpeta, Nalbari, Kamrup, Darrang, Nowgaon, Morigaon, Sonitpur, Jorhat, Golaghat, Sibsagar, Dibrugarh, Tinsukia, Lakhimpur, Karimganj, Hailakandi, and Cachar. The major part of the Surma valley is within the present Bangladesh and only a smaller triangular part of it is known as the Barak plain forming the district of Cachar, falls within the present state of Assam.

Assam is having a land area of 78,439 square km. and the living population of the state is 2, 66, 38, 407 according to the 2001 census. The state capital of Assam is Dispur. The 1991 census population of Assam was 2,414, 322.

Kamrup a centrally located district and hub of all important activities (having the capital) is endowed with all natural potentialities. According to the census of 1991, Kamrup has a population of 20, 00,070 with an area of 4345 sq.kms. According to 2001 census the population of Kamrup is 2,515,030. The population of greater Guwahati is 8, 08,021 according to the census of 2001.

1.6 Meaning of the term population education:-

Population education also called as '**Education for population awareness**' is of very recent origin having been first mooted in the 1960's. The concept of population education is still in an under developed stage. Some

people use the words "sex education" and "family life education" for population education. In the year 1962 Prof. Walland of Columbia University used the term "**population education**" and since then the term is widely used. Though the population education is widely popular in the advanced countries, yet has no generally accepted meaning or definition. "So far it is still for most part, a collection of concepts and generalization which are in the process of being given definition, a shape, content, a structure, and validity for being brought within the purview of formal teaching."

Several experts have attempted definition of population education, but a universally accepted definition is yet to be found.

Viederman defines population education as: "The process by which the student investigates and explores the nature and meaning of population process, population characteristics, the causes of population change and the consequences of these processes, characteristics and changes for himself, his family, for society and for the world."

In the view of V. K. Rao,

"Population education is an education programme which helps teachers to understand the interrelationship of population dynamics and factors of quality of life and to make informed and rational decisions with regard to population related behaviors with the purpose of improving the quality of life himself, his family, community, nation and the world."

According to Massialas,

“Population education is defined as the teaching and learning of reliable knowledge about the ways of enquiring into the nature of human population and the natural and human consequences of population change.”

The definition given by population reference Bureau is as follows,

“Population education seeks to bring about realization of the individual, family, social and effects of the explosive increase in human population, the rapid shifts in concentration and distribution of people, the implications of changing age and other demographic patterns and the conceivable options that may be open to mankind to cope with the consequent problems.”

Thomas Poffenberger defines population awareness as;

“The communication of those aspects of population dynamics which indicate the significance of population growth in terms of its social, economic and political consequences for a given area.”

Herald Howe regards population education as;

“The educational process by which a revision of attitudes towards family size is to be brought about. The process draws on the resources of a number of fields at all levels of education.”

A more useful definition was produced at the UNESCO Asian Regional workshop on population and family education held in Bangkok in September-October 1970. The definition evolved was,

“Population education is an educational program which provides for a study of the population situation in the family, nation and world with the purpose of developing in the student’s rational and responsible attitudes and behavior towards that situation.”

This may be taken at the present moment as a standard definition of “population education” not because it comes from an international agency like UNESCO but it encompasses in a nutshell the objectives, content and goals of population education.

Chouls states,

“A population education program should within the context of the student’s culture, his society’s population situation, in his individual perception of the situation, assist the student to arrive at a more rational comprehension of his population situation, plus the effective prerequisites to act on this increased rationally.”

Intensive training programs in population education conducted by the Department of education of the Philippines in 1972 defines population education as the process of developing awareness and understanding population situation as well as a rational attitude and behavior towards this situation for the attainment of quality of life for the individual, the family, the community, the nation, and the world.

Prof. Sloan Wayland who is regarded to be the father of population education all over the world and who visited India 1965 at the invitation of

the Government of India explains the meaning of population education in the following terms;

“Regardless of terms used, we are concerned about the inclusion in the formal education system of instructional setting in which young people will come to understand the circumstances which have led to adoption of family planning as public policy and to understand that for the family and the nation family planning is possible and desirable. This would include an understanding of the relation-ship of population dynamics to economic and social development of the country and implication of the family size for the quality of life of individual family. The particular instructional activities at any given school level and in any particular subject field would, of course, be devised in a manner which would be pedagogically sound and appropriate for the particular society.”

This appears to be a complete exposition of meaning and scope of population education in today's context. Better quality of life for the individual, family and the nation is therefore the main strain of the above statement of Dr. Wayland.

Smt. Avabai B. Wadia, president family planning Association of India referring to the population education says that,

“It is primarily an education programme dealing with the influence of population trends on society and the individual. Education in population dynamics is not propaganda or promoting a set of ideas but a way of conveying knowledge and creating awareness which will help, in course of time, to bring

about new attitudes and behavior patterns, the aim of population education is to help promote well-being and higher quality of life, for a few or for the privileged, but for all humanity. And in that sense it is a subject that has relevance in every country, whether it faces a population explosion or not."

This again brings into focus the relevance of this new field of education to all the countries of the world whether they are fully developed or are in the process of their development.

To sum up, it may be said that it is not an easy task to produce a clear cut definition of population education as it is relatively a new field of study. However, the meaning and its scope has been made explicit through the various objectives which have been laid down for the population education programs. In short, population education implies a change in the attitudes and behavior patterns of the individual which enables him to make rational decision on population issues involving the family, nation and the world at large.

To quote Smt. Avabai B. Wadia,

"One has the strong feeling that population education seems to be one of those area of knowledge where definitions will probably follow the empirical programs evolved rather than the other way round. It is, therefore, quite possible to move on the action programs without spending too much time on perfecting theories."

Therefore it is high time to set ourselves into motion towards implementation of the population education programs whatever it has been

or may be defined. Without the help of education it is not possible to reduce population in the developing country like India where population explosion makes the life miserable.

A pamphlet issued by the population education unit of the Cultural Pedagogical Institute, Allahabad, in the year 1973 says,

“Population education views population not as a problem to be controlled but rather as a phenomenon both social and biological to be handled.”

1.7. Need of the study:

The rise of population has become a problem for the entire world. The situation is very much alarming. If this situation is not tackled successfully then the living standards of people will fall down because the problems pertaining to food, housing, drinking water, medical facility, employment, personal security, recreation and education will become more serious day by day.

Today's students are the future citizens of our country; hence they play an important role in population control. When the students make themselves conversant with the evil effects of increase in population they inculcate in them the feeling of having small families in their future life as well as help others to understand the evil effects of increase in population and encourage others to have population control. So population education should be included in the curriculum as integrated with other subjects whenever possible in a relevant manner. Hence it will be worth while to make an analytical study of

the present state of population awareness as well as the place of population education in the curriculum. Therefore the present study on population education seems to be necessary. It is thereby hoped that the study would be able to make some contribution in the field of population education and will be able to put forward some suggestions for inclusion of population education in the curricula.

The title of the study reads as under:

“A study of population education awareness of college students and stake holder’s perception towards inclusion of population education in the degree curriculum”

1.8 Operational definitions of the terms used in the study

1. Population education awareness: Consciousness about the increase in number of people as well as population education as a subject.
2. College students: Age group of 17+, 18+, 19+, and 20+.
3. Stakeholder: Related persons: i.e. teachers, parents, other responsible members of the society i.e. members of NGO, Doctors etc.
4. Degree curriculum: (Part I+ Part II+ Part III)Degree curriculum prescribed by Gauhati University.

1.9 Objectives of the study.

- a) To study the student’s knowledge and understanding about population situation and population education.

- b) To study the student's knowledge and understanding of ill effects of the unchecked growth of population on the life, health and nutrition of family, economic condition of the country, education, environment and natural resources and their attitudes towards inclusion of population education in the college curriculum.
- c) To study the teacher's and parent's knowledge and understanding of the concept, scope and importance of population education.
- d) To examines the attitudes of teacher's, parent's and community members towards imparting population education at degree stage.
- e) To develop an understanding of checking population growth through planned parenthood.

1.10. Delimitation of the study:

The study will be delimited within the greater Guwahati area among the degree students, their parents and their teachers and some community members.

CHAPTER-II
REVIEW OF RELATED LITERATURE

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CHAPTER II

2.1 Introduction :

According to C V Good (1959) "Survey of related literature helps us to know whether the evidence is already available to solve problem adequately without further investigation and thus may save duplication".

Related literature gives the researcher an insight into his/ her problems of carrying out the research. A review of related literature also provides the researchers the correct academic guidance. It may improve the general ability of the investigator by providing ideas, theories and explanations, help in formulating the problem leading the researcher to evolve an appropriate method of research.

Related literature is the study of similar or related works done by previous researcher in the same area (field). It also motivates the researcher to understand the study in hand and plan his /her line of investigation. It helps to avoid probable duplicity that may arise and also brings to focus new knowledge to the researcher. By reviewing one can also evaluate and interpret the significance of one's findings.

An important aspect of review of related literature is that, the researcher can decide appropriate methodology and research relating to his/ her problem and accordingly select procedure for the collection of data. The review of

related literature is immensely effective in providing the right insight into the methods for computing the results of the study in hand.

Population education as an area of research is new in comparison to other branches of education. A good many studies have been done by the researchers in various organizations of family welfare and population education as well as in different universities in India under their project or M. Ed, M. Phil, and Ph. D. Degree programme. Any research is incomplete, if some researches made in other countries by other researches would not be discussed. Looking to this fact, the researcher has also observed some research studies made or completed in other countries in the area of population education. Also in this field the researcher has limited herself only towards the researches done in respect of knowledge, attitudes and beliefs towards population education. Following are some of the researches carried out in the area of population education in various countries.

2.2 Research in other countries :

It is assumed that the objectives and strategies of population education developed in a specific country would reflect the way in which population matters were viewed by the country's policy makers and planners. In developed countries population education is primarily an outgrowth of environmental consensus. In less developed countries population education is pursued mainly because of awareness of rapid population growth.

Tae Ryong Kim and Kyoung Sik Cho in 1970 made their research study on "knowledge, attitude and behavior of the middle and high school teachers

with regard to population and family planning education.” This study was done at National family planning centre, Seoul republic of Korea.

The findings of the study show that teachers were not well prepared to teach population, family planning or related topics. More than half of the teachers apparently had no opportunity to learn about those subjects in their own schooling and more than four fifths had no chance to learn about the subject of population in special meetings or seminars outside of their own formal education. Most of teachers believed that they would profit from special seminars on population education. They also believed that there should be more materials on population in the curriculum. They also stated that family planning should be included in the curriculum.

The majorities of the teachers think that family planning should be at an advanced or high school level, while few of them think it should be taught in middle school or at all levels. They also felt that family planning should be handled primarily in health, biology and social studies classes.

A study on “the knowledge and attitudes of Indian collage students towards population related problems” was made by Thomas Poffen Berger in 1970 at Ann Arbor center for population planning, University of Michigan. The object of this study is to find the opinion of male and female college students towards population related issues. This study has formed the following conclusions:

96 percent of the boys and 100 percent of the girls agreed that the population of India was growing too rapidly.

83 percent of boys and 92 percent of girls agreed that population problem was serious.

While the respondents indicated that they favoured a small family norm propagated by the Government of India in the interest of the nation, a few favoured a small family motivated by the welfare of the individual families. The average number of children desired by the boys was 2.6 while the average number desired by the girls was 2.2.

The majority of the boys and girls wanted at least one son among the children.

While most of the girls approved of the family planning methods, 19 percent of the boys disapproved because they believed that the methods were unnatural and dangerous.

A Ph.D. dissertation on, "knowledge, attitudes and belief as about population education of teachers in Thailand; a comparison of secondary school teachers, teacher in training and instructors in teacher training institutions" was written by Chaiwat in 1974 at university of North Carolina, Thailand. The findings of the study show that male teachers had significantly more knowledge about the basic facts of population matters in Thailand, than female teachers.

Secondly, these three groups of teachers tended to have positive attitudes towards -

- a) Limiting population growth in Thailand,
- b) Adopting population education in the schools,
- c) Participating in population education activities,
- d) Family planning in Thailand,
- e) Participating in family planning programme and
- f) Teaching related matters of family planning in the schools

Female teachers had significantly more positive attitudes towards limiting population growth in Thailand than male teachers. These teachers believed that the age at first marriage of a Thai girl should be between 21 and 25 years and for a Thai boy between 26 and 30 yrs.

The majority of teachers in each group felt that the present size of population in Thailand was optimum but the rate of population growth of the nation was too fast. Most of these teachers believed that increasing the Thai population would lead to serious problems for the nation related to social and economic development.

Most of these three groups teachers believed that population education should be introduced into both the school curriculum and adult education with equal weight. The largest proportion of secondary school teachers and instructors believed that it should be provided through educational school curriculum for the various levels of education while the largest proportion of teachers in training believed that it should be provided through mass communication channels such as newspaper, radio and Television.

The level of education at which they believed population education should be started varied from one group of teachers to another. They believed that population education should be arranged by integrating it into some existing subject for primary & secondary level. For college and university level it should be established as a new subject.

Chaiwat panjaphongse in the year 1974 has made a research study under population education project in Department of education, Mahidol University, Bang Kong on, "knowledge, Attitudes and beliefs of secondary school students about population education and family planning".

The finding of the study was that most students believe that Thailand faces a serious population problem, but they also favour smaller families for themselves and others, and would encourage both use of family planning and education about family planning in school programme.

In the year 1975 young Harn Park worked on a project, "a survey on the secondary school teacher's knowledge and attitudes towards population problem at education research institute, Seoul National University, Seoul. The findings of the project were as follows.

- i) High school teachers as a whole were highly aware of the importance and seriousness of the population problems. Catholic teachers, especially those teaching natural sciences and arts, rural teachers, and older teachers showed a relatively low level of awareness.
- ii) Secondary school teachers attitude towards population problems were positive, particularly with respect to family planning and population control. They were cognizant of the need of population education.
- iii) Sampled teachers generally indicated their dissatisfaction with the in service training they received and their teaching experience at school. They new that their knowledge of population problems, mostly obtained from unreliable sources and in an unsystematic way, was generally inadequate to meet education needs at school. They also pointed out that the text books used in the present high school are insufficient, inadequate as far as the context of population education is concerned.

A study on "Relationship between specialization and attitudes towards population related issues among professional students in Korea" is made by Lee Kymk Sik in 1975 at Korean institute of family planning, Seoul.

Following findings are drawn from the majority of respondents, regardless of professional background, believed population education was a better approach to "solve population problems" They were also in favor of the school system as the educational channel for sex and family life education.

A population education project on "knowledge attitudes and beliefs of elementary school teachers about population education" by Chaiwat panjaphougse in 1975 was completed at Department of education, university at Monitor, Bangkok.

— A substantial proportion of elementary school teachers had a rather low level of knowledge concerning the rate of national population increase, the approximate size of Thailand's population and Government policies.

— 87.8 percent felt that the Government should make use of population education to help lower population growth. In addition 80 percent said that the Ministry of education should be involved in the national population programme.

— Most of the teachers felt population education should be included in the secondary school curriculum and they favoured integrating population education into existing curricula in rather than setting up a new course was seen as the best approach to its introduction.

— the teachers were found to be co-operative with regard to population education activities.

A research project on, "a survey on population consciousness of students and teachers in the elementary and secondary school" was completed at Korean educational development institute, Seoul in 1977.

The finding of the study are drawn as –

- i) The knowledge of social problems caused by population increase was higher among teachers at the high school level and much higher than that of the students. Both the students and teachers opted for the nuclear or small size family, viewing a large sized family as having negative effects on the family members.
- ii) The knowledge of the effects of population growth to health problems was higher among students than other.

Orrawin Trocki (1977) has worked on a research project on "attitudes toward family planning and population education among teachers and students" under South-East Asia population research Awards programmed Singapore.

— The Majority of the respondents in each group preferred the nuclear family to the extended family. The majority of all respondents preferred a small family of 4-6 members.

— Attitudes towards population and family planning most respondents agreed that Thailand needs family planning. The respondents preferred the inclusion of population education at the secondary, college and out of school levels, but not at the elementary level. Population education must be taught in the teachers colleges by integrating with various subjects rather than as a separate, required course. The adult student preferred the inclusion of birth control methods in the curriculum of the functional literacy programme and the secondary school level, but not the elementary.

A population research project on, "Assessment of secondary school teachers and students knowledge of and attitudes towards population education" was organized by population center for training and research, west Visayas College, Iloilo, Philippines in 1978.

The following findings are drawn from the study:

- Secondary school teachers and students in all types of school had adequate knowledge of population concepts, facts and topics.
- both groups had adequate knowledge in the four areas of population education. The teachers had a high level of knowledge than the students in all the four areas and were very adequate in the areas of "planning for the future."
- the one strong agreement among all respondents to the inclusion of population education in the curriculum to provided them with opportunities to help solve population problems.

Under population education programme a study was made on "knowledge and attitude towards population education and practice of family planning of teachers" at Dhaka in 1979 by the education division of Ministry of education and Religious Affairs of Bangladesh.

Following findings are drawn from the study:

- The mean scores of three groups indicate that the knowledge base of primary school, secondary school and college teachers in the area of population problems and population education is equally low; specifically in demography health and nutrition, environment, education, food & agriculture, socio-economic and population education.
- All three groups of teachers have favorable attitudes towards population issues and population education, with the college teachers having a slightly

more favorable attitude than the other two.

— The attitude of each level of teachers has some conformity with their family size the college teachers who have the smallest family size have a more favorable attitude towards population issue.

— The teachers at all levels are conscious about the severe consequences of rapid population growth in Bangladesh.

— While the three groups of teachers generally agreed with family planning the secondary teachers were least enthusiastic.

— An over whelming majority of the teachers agreed that population education should be included in the formal education system with college teachers taking the biggest position followed by the primary and secondary school teachers respectively.

At the University of the Assumptions, Philippines, a study on “knowledge, and attitude towards population education” were carried out by, seniors and teachers in selected secondary school in panupanga” in 1979.

The findings of the study are -

— The total student respondents seemed to have an adequate knowledge of population education. However controlling for the variable of sex, a significant difference was obtained in favor of the female senior respondents.

— The total teachers respondents had adequate knowledge of population education.

— Both student and teacher respondents generally possessed positive attitude towards population education.

A study on “knowledge and attitude towards population education problems, issues and population education of different level of students” was done at Dhaka in 1980 under population education programme of ministry of education and Religious Affairs (Education Division) Bangladesh.

The findings of the study are:

— Students of higher classes had a higher knowledge base than those of the lower classes.

— Within each class or group, there is still a substantial number of students whose levels of awareness should be raised substantially through an introduction of population education course in the school.

— There is fairly favorable attitude of the students towards population education. However the nature of the distribution of the test scores for each class or group indicated intra class or inters group variations, demonstrating the fact that in each group there were large number of students with less favorable attitude than that is represented by the mean score for the class.

— The class or the group with a higher knowledge base tends to be more favorable towards the subject than that with a lower knowledge base. However, in class six, although the male students had a higher knowledge base than the female students, their attitude was very slightly less favourable than that of the female students.

— In the higher level of education (classes XI to XIV,) the male students have a higher knowledge base than the female students. But in each class in this level, the female students tend to have a slightly more favourable attitude.

Wilawan Charanyanauda (1980) studied “the relationships of attitudes toward population education quality of life, beliefs and professional

commitments of Thai home economics teacher educators under South-East Asia population Research Awards programme, at Institute of South-East Asian studies, Singapore.

The findings of the study are:

- Teacher education had more positive attitudes tended to have more positive quality of life beliefs and higher professional commitments.
- Age, family size and years of teaching had no influence on those teacher educators' attitudes towards population education, quality of life beliefs, and professional commitments. This may be due to the fact that all teacher educators in home economics were already concerned about quality of life. In addition, almost all had small families by Thai standards.

A study in the area of population education was done by suchart Somprayoon on "Thai prospective Teachers" opinion towards family life and family planning including sex education at faculty of education, Chulalongkaru University, Bangkok in 1981.

The following findings are drawn from the study:

- The findings strongly supported the need for improving the curriculum and instruction regarding family life and family planning including sex education in the college of education of university.
- In addition, the qualification of staff, text books and other teaching facilities should be carefully re examined and increasingly improved.
- The courses about family life and family planning including sex education in the colleges of education of universities should be specially enriched and broadly extended. At least two credits of these courses should be required in the general education or other areas of study in the curriculum of all education students.

Suryawikart B. of Florida State University conducted a study (1985) to assess the impact of population education in secondary schools in west Java, Indonesia. The study aims to measure the extent to which demographic and socio economic status factors influence attitude and behavior change. The aim is to gauge the extent to which information sources about population shape, population attitudes and behavior. The study sample comprises 660 students representative of the six regions of the country. Qualitative interviews and observation methods were used to examine the impact of reflection on inquiry as a technique in class room presentation of information. It was found that attitude was affected by student's residence, family size, access to sources of information and occupational status. Descriptive findings reveal that knowledge is gained from mass media.

In Tunisia, a programme to instruct Tunisian secondary school students in population studies was evaluated by E I Amouri using a factor analysis of the result of questionnaires administered to 1092 students in 10 cities including Tunis in 1985. Teachers and parents were also surveyed. Favorable attitudes, social consciousness and superior knowledge were found more commonly among the youth form, prosperous social classes and among female students. The study revealed that most teachers felt the emphasis of sex education was not strong enough, the parent's concept of population education was unclear, but like the students, teachers, parents seemed concerned regarding their children economic stability and well being and appeared conscious to the necessity of population control.

2.3 INDIAN STUDIES

In the sixth survey, the general comments on research in population education are as under:

Research has been a weak link in the population project at all levels i.e. school, post graduate literacy and continuing education and higher education system. Evaluators and reviewers of the research in population education from time to time have brought this discouraging fact home. Evaluation report of population education programme in higher education also pointed out that "Research and evaluation have been comparatively weak areas of project," (1992). Research was reported as neglected area in the evaluation report of 1997 (UNFPA 1999).

In India, from 1966, studies are made in the area of population education relating to the topic "knowledge and attitude." Most of these studies have covered the urban samples and very few have included rural samples. There are also some studies which have covered both rural and urban sample. In knowledge and attitude studies some studies have used questionnaire as a tool for research, some studies have applied interview schedule and some studies have used both questionnaire and interview as research tools.

In the 1966 Madhuben studied the attitude of female teachers towards family planning.

The findings of the studies were-Fourteen percent lady teachers had information regarding the means of family planning, which 70% were of no information in this respect. Husbands of 24% lady teachers had information

of family planning means. Family planning was considered against the religion by 15% lady teachers while 20% consider it as an immoral action.

In the year 1968 S. K. Sandhu and K. S. Bhardwaj made a study on the "Attitudes of unmarried employees towards family planning". This study was made at Central family planning institute, New Delhi.

Some major findings of the study were:

Seventy eight percent respondents were aware of such service, contraceptive distribution and education programmed like lectures on family planning, movies and family planning meetings in their office, while 43.5% had not participated in any of the activities. 49% of the respondents wished to have two sons and one daughter and 34.2% expressed their desire for one son and one daughter while 58% respondents favored only one son.

A study on "reactions of high school teachers to population education as an integral part of the curriculum" was made by Balasubramaniam in the year 1970.

The findings of the study shows a very high awareness of the population problem in India was found amongst teachers. The teachers replied that unemployment, low standard of living and food shortage were due to over population.

Most of the teachers were not aware of the effects being made to introduce population education in the school curricula. They did not know about the national seminar on population education held at Bombay in August 1969.

Most of the teachers ware of the opinion that population education should be introduced in the school curricula. The suggested contents are-

- a) Relationship between economic growth and population.
- b) Ways and means of finding solutions to the population problem.
- c) Demographic trends of population growth.

However 30 percent of teachers who did not approve of the inclusion of population education in the school curricula were of the opinion that immaturity of students at the school level would act as a barrier to teaching the subject. Where only 23 percent of the teachers were of the opinion that population should be taught as a separate subject, 49 percent felt that it should be integrated with other subjects.

In the year 1970 P. V. Varghese worked on "a study of the attitude of teachers towards different aspects of population problems" for this M. Ed. Degree. He formulated an objective to find out the attitude of teachers on different aspects of population problems.

Some findings of the study are -

The male and female teachers differed in their attitude towards population education.

The marital status of teachers had no bearing on the attitude towards population education.

Teachers belonging to different religious groups had the same attitude towards population education.

Where the religion of teachers was significantly related to their attitude to family planning and sex education, it was not related to their attitude towards population education.

In the year 1970 Poelman and Rao studied the opinion of children, teachers and guardians regarding birth planning this study was made in Delhi and an area of 70 miles around Delhi.

The study has drawn the following findings:

It is found that as the children's age increases, they favour small family norm. Similarly with the increase of age, marriageable age also used to increase.

The rural girl pupils wish to marry at the mean age of 20.8 years while the mean age of urban girl students was 23.1 years.

The mothers of rural girl pupils are favor of 18.4 years a mean age or the marriage of their daughters while the mean age of urban girl students prefer mean age 21.0 years for the marriage of their daughters.

Both rural as well as urban female teachers consider the mean age 25.5 years and 26 yrs as a suitable age of marriage for boys and mean age 20.5 years and 21.4 years for girls.

98 percent teachers accept over population as a problem in India. 95 percent male and 75 percent females consider it as a serious problem.

To provide education relating to population and family planning in schools, 84 percent have merely accepted the fact.

Thomas Poffenberger in the year 1971 studied on "population learning among secondary school students in an Indian village".

Following findings are drawn from the study -

The village secondary school students were aware of the population problem.

They gained this knowledge through mass media, particularly papers

and extension education efforts of the family planning programme such as film shows, exhibitions and the visits of family planning workers to homes.

The students voted in favor of a small family and this was mainly prompted by the difficulty experienced by their parents in rearing a large family.

A study on “the receptiveness of school teachers to population education” was made by J. R. Maheshwari (1972) for his M.Ed. degree.

The findings of the study are:

- The teachers had very high awareness of the population problem faced by the country and the world.

- About 92 percent said that unemployment and poor standards of living were mainly due to over population.

- Eighty percent agreed that a small family is advantageous 40 percent of them said that it enables the people to have higher standard of living, 24 percent said that it leads to a happy, comfortable life.

- The majority preferred two sons and only one daughter.

- The majority of teachers did not believe in the effectiveness of population education at school level. They felt that adults should be educated in the philosophy and practice of family planning.

- About 70% did not know of the efforts being made to introduce population education in school.

- A majority of teachers favoured the idea of integrating population education concepts, with existing school subjects. They felt that most of the concepts could be integrated through social studies, Science, languages and Mathematics.

H. S. Akhtar, M. Q. Sueha, Anjalik Kumar, and ISI Om Faizul 1972 worked on "attitude and practice of graduate school teachers towards family planning"

The study has following findings:-

- 10 percent of male and 9.5 percent female teachers reported reading family planning literature regularly, 78 percent male 71 percent female respondents read them either occasionally or rarely.
- 71 percent male respondents had 1 to 3 children, 59 percent of the total sample favored having three children.

In 1973 "A study of the knowledge and attitude of teachers towards the introduction of population education in school curricula" was conducted by N. N. Srivastava for his M. Ed. Degree.

Following findings were drawn from the study:

- The majority of the teachers were aware of the population problem.
- The consequences of over- population in their opinion were unemployment, under employment and low standard of living.
- The majority felt that if the growth of population is not checked, the economic development of the country will be hampered.
- Most suggested that the best way of checking over population is by educating the younger generation.
- Most were of the opinion that population education should form a part of school education and that it should be integrated with existing school subjects especially through the social studies course.

A study on “the opinion of teachers towards population education” at population study center, Sri Venkaleshwara University was made by S.L. Nagda and others in the year 1974.

Research findings are as under:-

- More than 65 percent consider population education and family planning methods as identical.
- Ninety percent realized that our country cannot meet the growing needs of its people if the population continues to grow at the present rate.
- Ninety percent felt that a small family would lead to happy and comfortable life and - most agreed that the population education is necessary to assist youth initiate responsible parenthood.
- Most agreed that the size of the family can be planned by a human being.
- Fifty percent considered late marriage as one of the methods of controlling the size of the family.
- Eight percent thought that over population leads to socio-economic instability in the country.
- Forty percent favored seminars for imparting population education at the college level 26 percent favored teachers and 80 percent favored the integration of population education with collegiate curriculum.

Ganesh Lal Mehta (1974) in his M. Ed. Dissertation of Utkal University titled, “A study of the opinion of parents and teachers towards the introduction of population education in high schools of Bhubaneswar.”

The findings of this study are:-

- The teachers and parents were of the opinion that population education will help create the right attitude towards small family size, Parents from the

high income group were more favorably inclined towards this view than middle income parents. Parents of the low income group were strongly opposed to this opinion.

— While parents were optimistic that the concept of a small family is achievable through population education, the teachers in general did not agree with this opinion.

A study on “population awareness among school students in Goa (standard VII to XI) as well as teachers and parents and their reactions to the inclusion of population education in the school curriculum” was made by Kalyan A. Sarkar (1974) for his Ph.D. degree of Bombay University.

— A great majority of students were aware of the population problem of the country.

— They were willing to learn more about population.

— Nearly 50 percent of them desired to learn it as incorporated with other subjects of the school curriculum. Teachers were sufficiently aware of the population problem of the country as a whole.

— They were in favor of introducing population education in the school curriculum.

— They desired the integration of population education with major subjects of the school curriculum.

— They wanted population education to be taught by teachers themselves but with some training.

— Parents felt that population education should be introduced in schools. They thought it should be taught by teachers themselves rather than by outside experts. Some teachers of the school should be given specialized training so that they may teach the contents of population education effectively.

Vithalbhai Patel (1974) for his M. Ed. Degree of Gujarat university worked on "A study of population awareness of pupils of standard X at Varuamula high school."

The findings of the study are:

Students in general were aware of the population problem faced by the country.

— Most were not aware of the importance of the family planning programme.

A good number considered late marriage as an advantage.

— The students had no independent decision regarding the age of marriage.

They had favorable attitude towards education in general.

— Girl students were more knowledgeable about family planning than boys.

A study on "knowledge and attitude of teachers of kurnool towards population education", at population study center S. V. university, Tirupati, was made by Ramchandran in the year 1974.

These are the findings of the said study.

— At the beginning of the course 40 percent of the participants were not aware of the meaning of population education. At the end of the course most of them had better concept of population education.

— At the end of the course 80 percent considered that population awareness is also a part of population education, and most considered that family planning and population education were not one and the same.

— In the beginning, 50 percent considered that there was no proper environment in schools and colleges for creating population awareness among students. In the post-test, more than 70 percent considered that it was possible to create awareness of population problem in the students by a programme of lecture by experts and by organizing film shows and exhibitions.

— The majority agreed that over population leads to economic and social instability in the country, and considered that a small family was conducive to higher standards of living and that population education was necessary for developing responsible parenthood among the youth.

An M. Ed thesis of Bangalore University by G. Prabhakar 1975 was written on “a study of the opinion of students of a few secondary school of Bangalore city towards introduction of population education at the secondary school level.”

The study has following findings.

— The students, both boys and girls of each age group from all religious backgrounds favored the introduction of population education at the secondary school level.

In the year 1975, S. L. Nagda and others made their study on “A survey of the perception of the students of the women’s college towards population education.”

Following findings were drawn from the study.

— More than 65 percent considered population education and family planning as identical.

— Ninety percent realized that our country cannot meet the growing needs of its people if the population continues to grow at the present rate.

— Most of the students thought that over-population leads to socio-economic instability in the country and they agreed that population education is necessary to assist youth initiate responsible parenthood.

— Most of the students favored the integration of population education with collegiate curriculum.

A study was made on “the awareness of teachers on population problems and their reaction to the introduction of population education in schools” by Gopal D. Rao in 1976 at NCERT, New Delhi.

The findings of the study were:

- They favored the introduction of population education in schools.
- Most of the teachers felt that it should be taught as an integral part of the school curriculum.
- They recommended that it should be made compulsory in schools and an examination subject.

Keshav Singh in 1976 worked for his M. Ed. Degree of Banaras Hindu University, on “A comparative study of attitudes of prospective and practicing Teachers towards family planning.”

Following findings are drawn from the study:

- Both the sexes of prospective & practicing teachers on the whole have almost the same attitude towards family planning.
- Prospective married male and female teachers are more favorably inclined towards family planning than the unmarried male and female prospective teachers.

In 1977 a study on “school teacher’s attitude towards population education” by N. V. Vaswami and Indira Kapoor was done at family welfare training and research center, Bombay.

Following findings were drawn from the study:

- While most of the teachers had heard about population education, only about 34 percent could define it correctly.

— When the meaning and scope of population education was made clear, about 75 percent felt that it should be introduced as a subject in the school curriculum.

Those not in favor of its introduction felt that the subject was difficult for teachers to teach and for pupils to understand.

— While 47.2 percent felt that population education should be integrated with other school subject, 8.7 percent thought that it should be taught as a separate subject and 13.9 percent did not express their opinion.

— Nearly 44 percent preferred not to teach this subject as they were not qualified to do so.

Manohar D. Deshmukh in 1979 for his M. Ed. Degree had worked on “A study of pre-university student’s awareness of population problem from selected colleges of Bangalore.”

Findings of the study are as under:

— The general awareness of students towards population problem was found to be moderate i. e. 53 percent were aware of population problem.

— Boys were found to be much more aware of population problem than girls.

— Family background and religion were not related to student’s awareness of population problem.

— The student’s involvement in the social service activities, in the reading of newspaper or going to movies had no effect on their population awareness. On the other hand, reading general books and listening to radio talks had a significant bearing on the level of population awareness.

In 1981, Nalini Devi K of Madras studied the population awareness of school going children and their willingness to receive population education in school.

The main objectives of the study were

- (i) to access awareness of children about population education
- (ii) to determine their willingness to receive population education
- (iii) to impart population education to students and test its impact on their population awareness and their willingness to receive population education in schools. A self made questionnaire was used for data collection, the stratified random sampling method was used.

Some of the major findings were –

- (i) Rural boys in general showed greater population awareness than urban boys and girls.
- (ii) High school pupils showed significantly more awareness than primary and middle school pupils.
- (iii) Majority expressed willingness to learn population education.
- (iv) The school course imparted to the pupils significantly improved their awareness towards population education.

In 1982, N Srivastava conducted a study to find out the attitude of secondary school teachers in Lucknow district towards teaching of population education. The sample consisted of 600 secondary school teachers randomly related from the secondary schools of Lucknow district. A self made attitude scale was used for data collection. The main findings reveal that- in general the attitude of the secondary school teachers towards teaching of population education was favorable, the rural teachers were more favorably inclined than

their urban counterparts, and there was no attitudinal difference between male and female teachers towards teaching of population education.

A study on "Awareness of population situation and attitudes towards population education of Kendriya Vidyalaya teachers in Andhra Pradesh" was made by R. Kalavathi in 1983 for her M. Ed. Degree.

The findings of the study are:

- Religion had not influenced the awareness of teachers.
- All the teachers had positive attitude towards small family norm.
- Female teachers had revealed slightly higher positive attitude as against male teachers but the difference was not statistically significant.
- Post graduate teachers had shown slightly higher awareness than trained graduate teachers but the difference was not statistically significant.
- Age level had not influenced the awareness of teachers, but influenced their attitudes. The attitudes scores in the age-group of 30-40 were significantly high.

Bhopal Singh in 1983 studied "the attitude of teachers towards population education" for his Ph. D. degree of Garhwal University, Srinagar.

The followings findings were drawn:

- 14% teachers considered population education harmful, while 78 percent didn't believe in such negative aspect.
- 85% teachers considered family planning as the work of the public welfare.

Usha Reddy in 1984 worked on "a study of awareness and attitudes of secondary school students in Hyderabad on population situation in India" for

her M. Phil degree.

The following findings are drawn in the study:

— The ideal age of marriage in case of boys and girls is 22 and 18. Both boys and girls had agreed with the statement.

There is a significant difference between Hindus and Muslims on the attitude of the family size and composition.

A study of M. Ed level on a “comparative study of teachers and students knowledge, belief and attitude towards population education” was made by Bharati panchani in 1984.

The findings of the study are:

— There is no significant difference in the opinion of teachers and students regarding population education. Both teachers and students are agreed with this fact that presently India has much population, so the growth rate of population ought to have been reduced.

— Maximum teachers and students had expressed their opinion in favor of small family and happy family.

— Both students and teachers agreed that presently the living standard of people in India is not satisfactory.

— Teachers and students both had sufficient knowledge of family planning.

— 40 male and 20 female teachers were in favor that population should be taught right from primary level to university level, while the remaining teachers and students expressed that it should be taught only at collegiate level.

— 57 male and 33 female teachers were well acquainted with the population education subject. Male and female teachers had agreed with this fact that if they were be given responsibility to teach population education, they would readily bear the task.

KV Rani Misra in 1985 worked on “a study of post graduate students of different courses towards population policy and social attitude” for her M. Ed. Dissertation.

Following conclusions were drawn:

- All students were of opinion that there should be two or three children in a family.
- Population problem is a severe problem of the world.
- The means of family planning and their uses are not the interruption in the natural process. Almost all the students agreed with the fact.

A study of attitude towards population policy and related issues of different professional groups was done by Rani Misra (1987) a M. Phil scholar of Sagar University.

Following findings were drawn:

- Teachers, students and the different professional groups in general were aware of the population problem.
- Teachers had a positive and favorable attitude towards population problem and were in favor of modernity.
- These three groups of teachers (primary, middle and University) tend to have positive attitude towards
 - a) Living population growth,
 - b) Adopting family planning techniques.

The university teachers had highest means score on family planning out of all seven professional groups.

- The majority of advocates felt that the rate of population growth of the nation was too fast. It is a serious problem for the nation and related to social

and economic development.

— A large majority of engineers are in favor of family planning and the use of contraceptive methods.

R. Subba Rao in 1988 worked for her Ph. D. on “the attitude of parents from rural and urban areas towards population education.

Following conclusions were drawn:

— The teachers and parents differ in their attitudes towards population education.

— Male and female teachers don't differ in their attitude towards population education. But male and female parents differ in their attitude towards the issue.

In 1988, Syeda Akhtar of Mysore conducted a study on 156 teachers from 133 schools to study their attitude and knowledge in respect of population education.

The main objective was to assess the knowledge and attitude towards population education of secondary school teachers in Karnataka. A self constructed knowledge test and attitude scale in population education were used for data collection.

Major findings indicate that knowledge was related with attitude towards population education and significant differences were observed in terms of family income, exposure to mass media and contact with population education personnel.

In 1990, O P Verma of Kumaun University conducted a study on the teachers and students of the Kumaun hills to access their attitude towards population education.

The main findings revealed that –

- (i) The male teachers have a significantly higher attitude than female teachers.
- (ii) No significant difference between rural and urban teachers.
- (iii) The educational level of students had a significant effect on their attitude towards population education.
- (iv) There was a significant interaction effect of educational level and sex on students' attitude towards population education.

Another study was conducted to access the attitude of urban and rural scheduled caste parents towards the population problem by T S Sodhi and Multani Nishau Singh. The study relied on a sample of 4000 scheduled caste male parents, living in urban and rural areas. A self designed personal data sheet and a self constructed attitude scale was used for obtaining information. The study revealed that the attitude of urban parents towards population problem was comparatively more developed than that of their rural counterparts.

A comparative study of the attitude towards population education of demographers, teachers and parents was conducted in 1992 by Santosh Kumar. The study was conducted on a 600 sample, 200 from each category with the main objective to find out their respective attitudes towards population education and to find out the extent of relationship between the qualifications

and attitude of the three groups towards population education. The major findings reveal that male and female demographers were more favorably inclined towards population education. Female parents had a more positive attitude towards population education than male parents.

In 1992, V Indira conducted a study on the +2 level students of Hyderabad and Ranga Reddy districts to find out whether age, caste or the religious nature of the school had any influence on the awareness and attitude of the students towards population issues. It was found that the age had considerable influence on the performance of awareness but religion has no such influence on their awareness and attitude towards population issues.

A similar study was conducted by Sabhajeet Yadav to find out the relationship between religiosity, modernizations and socio-economic status of male and female students of both rural and urban areas and their attitude towards population education. His sample comprised 748 B A final students from different colleges of Faizabad, U P. The study reveals significant relationship among religiosity, modernization, socio economic status and attitude towards population education.

In 1997, M Dcous Kar undertook an intensive study to access the beliefs, attitudes and knowledge about population education among secondary school students and teachers from Sagar and Bastar divisions of Madhya Pradesh. The sample comprised of 999 teachers, 1000 students of X, XI in Bundelkhand and 251 teachers and 263 students from tribal areas of Bastar. Findings indicate that students had greater acceptance of population and population growth

issues and had greater knowledge and awareness of population problems. Teachers were more positive about the benefits of population education programme than students.

2.4 Studies conducted in Assam.

In Assam, studies made in population education are found to be very limited. Most of the studies have covered only at the school level. The researcher has gone through most of the studies done by previous researchers in this field.

Dikshita cheleng in the year 2001 made a study on the year 2001 made a study on the attitude of high school teachers in Dibrugarh town towards population education for her M.Ed degree under Dibrugarh University.

The findings of the study are –

- The attitude of the high school teachers of Dibrugarh town towards population is favourable.
- The attitudes of male teachers towards population education is favourable.
- The attitude of female teachers towards population education is also favorable.
- There is no significant difference between male and female teachers towards population education.

Mrs. Shukla Das (Roy) Choudhury made a study “on awareness of people regarding the significance of population education educations as a subject of study” for her Ph.D. degree in Dibrugarh university.

The major findings of the study were :

- Over population is a serious problem.
- Population education is a necessary subject of study.
- People were aware of population education.
- Population education it imported suitably can help in solving over population problem.
- Big family bring miseries.
- Small family norm if followed satisfactorily will help in solving over population problem.
- Population education is helpful in creating awareness in children regarding overpopulation problem and its serious consequences so as to develop positive attitude among them towards population education.

Devajani Duarah in 2005 made a study “on the awareness of secondary school students of Dibrugarh District about population education,” for her M. Ed. Degree under Dibrugarh university.

The following are the major findings.

- The secondary school students, in general are found to be aware about the concept of population education.
- There is no significant difference between urban and rural students in respect of their awareness about population education.
- There is significant difference between male and female students in respect of their awareness about population education.

Mustick Ara Tayab in 2005 made a study of the problems, awareness and attitude towards population education among the adolescent students of

Greater Guwahati for her Ph. D. degree.

The major findings of the study are

- 1) The study reveals that there are some inherent problems in the institutionalization of population education in the secondary school of Greater-Guwahati

— They are

- a) Confusion and lack of clarity regarding the concept of population education.
 - b) Lack of adequate and appropriate teaching methodology.
 - c) Diversity in languages and dialects among masses.
 - d) Lack of proper planning and co-ordination
 - e) Lack of resources both at the material and manpower level.
 - f) Problem of proper integration of population education.
 - g) Social and religious taboos.
 - h) Lack of research.
- 2) The school authorities, teachers and parents possess a favorable attitude towards population education.
 - 3) There is significant difference between the adolescent boys and girls regarding the awareness towards problems of over population and institutionalization of population education in the secondary school.
 - 4) Adolescent girls are more aware of the problems of over population and institutionalization of popular education in the secondary school.
 - 5) There is significant difference between the Assamese and English medium schools with regard to their awareness towards over population, problems of institutionalizing population education, awareness towards sex education, and in their extent of knowledge in matters related to sex education.

A study of the attitude of high school teachers towards population education in Sivasagar district was done by Rimjim Bora for her M Ed Dissertation (2007).

The main objective of the study were

- 1) To find out the extent to which the high school teachers show favourable attitude towards population education.
- 2) To find out the difference between Male and Female high school teachers in respect of their attitude towards population education.
- 3) To find out the difference between Science and Arts graduate high school teachers in respect of their attitude towards population education.
- 4) To find out the difference between Rural and Urban graduate high school teachers in respect of their attitude towards population education.
- 5) To find out the difference between trained and untrained graduate high school teachers in respect of their attitude towards population education.

The major findings of the study are-

- 1) 88% of the high school teachers have shown favourable attitude towards population education.
- 2) There is no significant difference between Male and Female high school teachers in respect to their attitude towards population education.
- 3) There is no significant difference Science and Arts graduate high school teachers with regard to their attitude towards population education.
- 4) There is no significant difference Rural and Urban graduate high school teachers with regard to their attitude towards population education.
- 5) There is no significant difference trained and untrained high school teachers with regard to their attitude towards population education.

CHAPTER-III

PLAN AND PROCEDURE

CHAPTER III

3.1 Plan and procedure

A research study needs a well planned and systematic effort by the researcher. Only an efficient plan carries the researcher towards scientific and systematic results.

The present study is based on normative survey method. This investigation has adopted a definite procedure. In this chapter an attempt has been made to present the details of steps taken to carry out the research work.

3.2 Need of the study

The rise of population has become a problem for the entire world. The situation is very much alarming. If this situation is not tackled successfully then the living standard of people will fall down because the problems pertaining to food, housing, drinking water, medical facility, employment, personal security, recreation and education will become more serious day by day.

Today's students are the future citizens of our country; hence they play an important role in population control. When the students make themselves conversant with the evil effects of increase in population they inculcate in them the feeling of having small families in their future as well as help others

to understand the evil effects of increase in population and encourage others to have population control. So population education should be included in the curriculum integrated with other subjects. Hence it will be worthwhile to make an analytical study of the present state of population awareness as well as the place of population education in the curriculum. Therefore, the present study seems to be necessary. It is thereby hoped that the study would be able to make some contribution in the field of population education and will be able to put forward some recommendations for the inclusion of population education in the curriculum.

3.3 Statement of the problem

The research problem for the present investigation is confined to analyze student consciousness on population matters. The present investigation would also analyze the students, parents, teachers and some concerned members reactions on population education as part of degree curriculum. Therefore, the statement of the research problem is "A study of population education awareness of college students and stake holder's perception towards inclusion of population education in the degree curriculum". It is expected to study the awareness of college students towards population education and also to study their perception towards inclusion of population education in the curriculum. The perception of other important stakeholders i.e. teachers, parents and community members are also attempted to examine through this study.

3.4 Objectives of the study

- a) To study the student's knowledge and understanding about population situation and population education.
- b) To study the student's knowledge and understanding of ill effects of the unchecked growth of population on the life, health and nutrition of family, economic condition of the country, education, environment and natural resources and their attitude towards inclusion of population education in the college curriculum.
- c) To study the teacher's and parent's knowledge and understanding of the concept, scope and importance of population education.
- d) To examine the attitudes of teacher's, parent's and community members towards imparting population education at degree stage.
- e) To develop an understanding of checking population growth through planned parenthood.

3.5 Assumptions of the study

The following assumptions have been formulated for the present study.

- a) It is assumed that student's knowledge and understanding of the population education varies in terms of location, sex of the students, and stream of the study.

- b) It is assumed that the awareness level of the students with the evil effects of over population and their attitudes towards the inclusion of population education in the college curriculum varies in sex of the students, in terms of location and stream of the study.
- c) It is assumed that there is a difference of level in knowledge and understanding among teachers and parents about concept, scope and importance of population education.
- d) It is assumed that teachers, and parents attitude towards inclusion of population education in the curriculum differs.
- e) It is also assumed that the students will be able to understand the fact that family size can be controlled by planning parenthood to check the population growth.

3.6 Pilot Study

Pilot study was conducted to find out the authenticity of the research work to be carried out by the investigator. A pilot sample of four colleges was identified for exploration and refinement of the instrument. The sample population consisted of 4 students, 4 teachers and 4 parents each from 4 colleges. From each college the investigator personally collected information from the students, parents and teachers. The responses of these questionnaires were analyzed and interpreted before constructing the final questionnaires.

3.6.1|The findings of the Pilot Study turns as follows:

- a) 95% students are aware about the problems arising from over population and reasons behind it. According to them illiteracy, lack of awareness, migration, early marriage, lack of knowledge about family planning, desire for male child etc, are the causes of population growth.
- b) Most of the students felt population education is necessary for both boys and girls for better understanding of the causes of population growth and to check population explosion.
- c) Both parents and teachers are concerned about the growing problems which are being created by rapid population growth. It is creating many socio-economic problems along with environmental degradation. They wholeheartedly supported the fact that population education should be included in the degree curriculum because the students are the future parents and at the same time they are mature enough to understand the problems and hence they are capable of motivating others to control population.

3.7 Final Study:

The present study is based on normative survey method. The investigation has adopted a definite procedure. The conduct of survey has been described and discussed under four sub-heads.

- i) Population and sample, Nature, Characteristics and Composition.
- ii) Construction and description of research instrument (questionnaire)

MIRZA

PROPOSED
SATELLITE CITY

LEGEND

City Boundary

Road Network

National Highway

State Highway

Major District Roads

Other District Roads

Proposed V.L.R. Road

Road Lanes

4 Lane Road

3 Lane Road

2 Lane Road

1-1/2 Lane Road

1 Lane Road

Others:

Railway Line

Cross Drainage/Bridge

Water Bodies(Rivers & Channels)

Hilly Area

Road Index:

Guwahati City Div. No. I

Guwahati City Div. No. II

Guwahati City Div. No. III

RIDE II Div.

Guwahati Road Div

SCALE

questionnaire seeks to identify the knowledge, awareness, attitude and understanding of students, teachers and parents on population matters. Interview schedule was prepared for community members like N.G.O.s, Doctors, Health Workers, Councilors.

3.7.3 Administration of the questionnaires and collection of data.

The questionnaire was administered to students, parents and teachers of 20 degree colleges of "Greater Guwahati."

The researcher contacted teachers for their Co-operation in filling up the questionnaire by themselves as well as by student and parents of three years degree course, students of three years degree course belong to the age group of 19 to 21 years which is a fertility age group as well as reproductive behavior age group. The researcher had to explain the instructions to teachers and students before filling up the questionnaire, so that they did not face inconvenience in responding to the questionnaire. The researcher also tried to convince them to maintain the secrecy of their responses. The respondents were also instructed not to consult any question with their colleagues while filling up their questionnaire.

On completion of the filling up of the questionnaires they were collected from their respective respondents and the researcher expressed her gratitude to all the respondents.

3.7.4 Analysis and Interpretation of data.

The investigator used statistical techniques for the analysis of data.

In the present investigation the data have been analyzed quantitatively as well as qualitatively. In interpreting and analyzing the data the following methods have been used.

- a) Table b) Percentage c) Graphical representation.

Percentage:

The word percent is derived from Latin phrase "Per centum"; which means by the hundred or for every hundred. We use the symbol % for percent. The use of percent makes comparison easier. To convert into percent, we multiply the number by 100 and insert % symbol.

Graphical Representation:

Graphical representation often facilitates good understanding of a set of data because these devices catch the eye & hold the attention of the researcher even when the most careful array of statistical evidence fails to attract notice. It translates numerical facts, often abstracts & difficult interpretations into concrete and understandable forms. Bar graph and pie diagram have been presented.

Bar Graph:

Bar graph represents each value in a range with a bar of varying heights. They may be simple range bar graph which compares values in one set of data, to each other, or a multiple range bar graph which displays comparable values from up to six sets of data at each point along the axis. A variety of shading or colours can be used to identify the bars.

Pie- Chart:

A pie chart compares parts to the whole, so each value in the range is a wedge of the pie. A range indicates the set of values that 1-2-3 will represent as wedges of the pie.

The next chapter, "Analysis and interpretation of data" presents the entire process of analysis and the interpretation of data collected during period of investigation.

CHAPTER-IV
ANALYSIS AND INTERPRETATION
OF DATA

CHAPTER –IV

Analysis and interpretation of data.

4.1 Introduction:

According to John W. Best,

“Statistical Analysis is the mathematical process of gathering, organizing and interpreting numerical data and is one of the basic phase of research process”

Analysis of data means that the tabulated material is studied and interpreted in order to discover the inherent meanings. Interpretation of the analyzed data necessitates understanding of the field of study and careful evolution of the technique employed. It helps to prepare a quantitative description of a population.

4.2 Scheme for data analysis:

The mass of collected data may be reliable and valid but often is in a raw state. It is necessary that, this raw data is systematically arranged, edited, classified and tabulated so that it serves its purpose. Statistical analysis of data facilitates an accurate and precise description of data. It enables us to make a careful summary of the results and formulation of conclusion and generalization.

This chapter will be devoted mainly to the analysis and interpretation of data. The present investigation is studied with the help of three questionnaires and one interview schedule. The presentation of analysis and interpretation will be done questionnaire wise in three sections fourth section interview schedule will be analysed.

Section one –Analysis and interpretation of the student's knowledge and understanding about population situation and population education.

Section Two – Analysis and interpretation of Knowledge, understanding and attitude of the teachers.

Section Three –Analysis and interpretation of Knowledge, understanding and attitude of parents.

Section Four –Analysis of attitude of community members.

4.2.1|

SECTION- I

Analysis and interpretation of the student's knowledge and understanding about population matters:

This chapter analyses the data obtained from the degree students of greater Guwahati. The total no. of students covered in the study was 300. The location wise, age wise, educational stage wise, sex wise and stream wise, the students were classified and shown in Table -1, Table-2, Table-3, Table-4 and Table-5.

Table No. – 1.

Location of the house of the students, in terms of frequency and percentage:

Variables	Frequency	Percentage.
Rural	39	13%
Urban	172	57.33%
Semi urban.	89	29.67%

N=300

57.33 % percent students reside in urban area whereas 13% and 29.67% students are from rural and semi urban areas.

Table No. -2.

Age of the students in terms of frequency and percentage:

Variables	Frequency	Percentage.
17+	60	20%
18+	66	22%
19+	89	29.7%
20+	85	28.3%

N=300

From this table it shows that 20% students fall in the age group of 17+, 22% students fall in the age group of 18+, 29.7% students fall in the age group of 19+ and 28.3% students fall in the age group of 20+ .

Table No. - 3.

Educational stage of the students in terms of frequency and percentage:

Variables	Frequency	Percentage.
Part I	130	43.4%
Part II	88	29.3%
Part III	82	27.3%

N=300

In case of educational stage of the students Table -3 shows that

43.4% students are from T.D.C part I

29.3% students are from T.D.C. Part II

27.3% students are from T.D.C. part III

Table No. - 4.

Sex of the students in terms of frequency and percentage:

Variables	Frequency	Percentage.
Boys	150	50%
Girls	150	50%

N=300

In case of Sex of the students, there are 50% male students and 50% female students.

Table No. – 5

Stream of study of the students in terms of frequency and percentage:

Variables	Frequency	Percentage.
Arts	100	33.33%
Science	100	33.33%
Commerce	100	33.33%

N=300

33.33% students are from each of the streams of Arts, Science and Commerce.

Table No. –6.

Awareness about present population of Guwahati :

Responses	Frequency	Percentage.
Yes	36	12%
No.	264	88%

N=300

12% students know the present population of Guwahati whereas 88% students do not know. They have the awareness about population increase but not sensitized about the rate of growth of population.

Table No. -7

India is set to overtake China and become the most populous Country in the world within a very short period:

Responses	Frequency	Percentage.
Yes	184	61.3%
No.	116	38.7%

N=300

61.3% students have idea that India will become most populous country in the world within a very short period. But 38.7% students do not have any idea about it.

Table No. - 8

India's population is growing at the rate of about:

Variables	Frequency	Percentage.
One child per second	76	25.3%
Two child per second	70	23.3%
Three child per second	80	26.7%
Four child per second	74	24.7%
No Idea	—	—

N=300

This table shows that students are not clear about India's growing rate of population but they have an idea that India's population is growing very fast.

Table No. – 9

Population explosion affects day to day life:

Responses	Frequency	Percentage.
Yes	267	89%
No.	33	11%

N=300

89% students feel that population explosion affect day to day life; whereas 11% students do not feel so. The students who answered "no" may be because of lack of awareness and may be they do not understand the meaning of the question.

Table No. – 10

Class rooms are overcrowded:

Responses	Frequency	Percentage.
Yes	143	47.7%
No.	157	52.3%

N=300

47.7% students feel that their class-rooms are overcrowded because of population explosion; 52.3% students do not feel so. The views differ because of nature of location, communicational advantages/ disadvantages and degree of availability of infrastructure.

FIG. 2 POPULATION EXPLOSION AFFECTS DAY TO DAY LIFE.

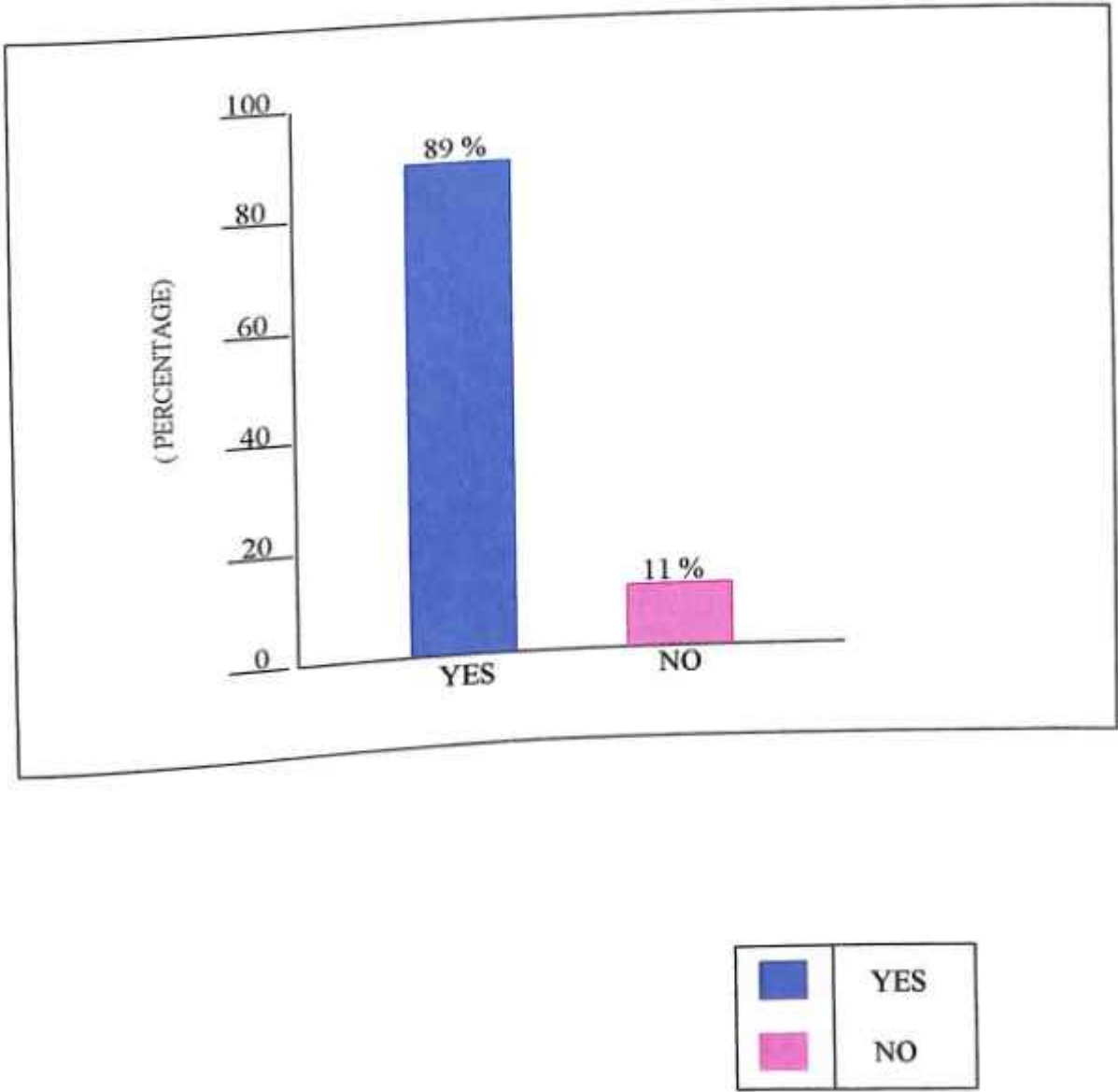


FIG. 3 CLASS ROOMS ARE OVERCROWDED.

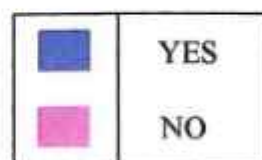
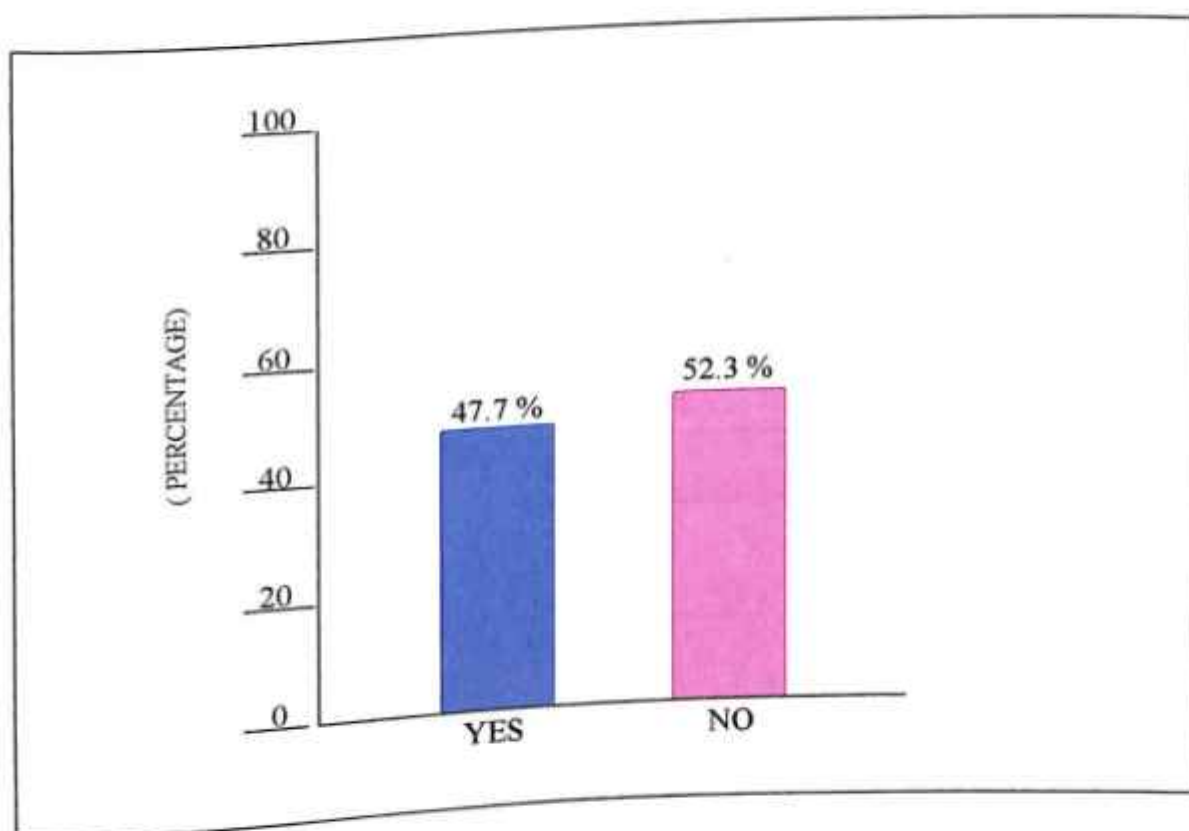


Table No. – 11

Open space in locality:

Responses	Frequency	Percentage.
Yes	127	42.3%
No.	173	57.7%

N=300

42.3% students say that they have open spaces in their locality.
57.7% students say they do not have open space in their locality due to increase in number of buildings to cater to the housing needs of ever growing population.

Table No. – 12

A small family is a happy family:

Responses	Frequency	Percentage.
Yes	297	99%
No.	3	1%

N=300

99% students believe a small family is a happy family where as a mere 1% does not believe so. One research conducted by Thomas Profenberger on secondary school students in an Indian village; the findings revealed that students voted in favour of a small family and this was mainly prompted by the difficulty experienced by their parents in rearing a large family.

FIG.4 OPEN SPACE IN LOCALITY.

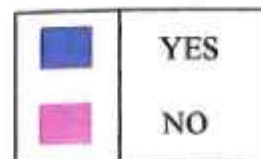
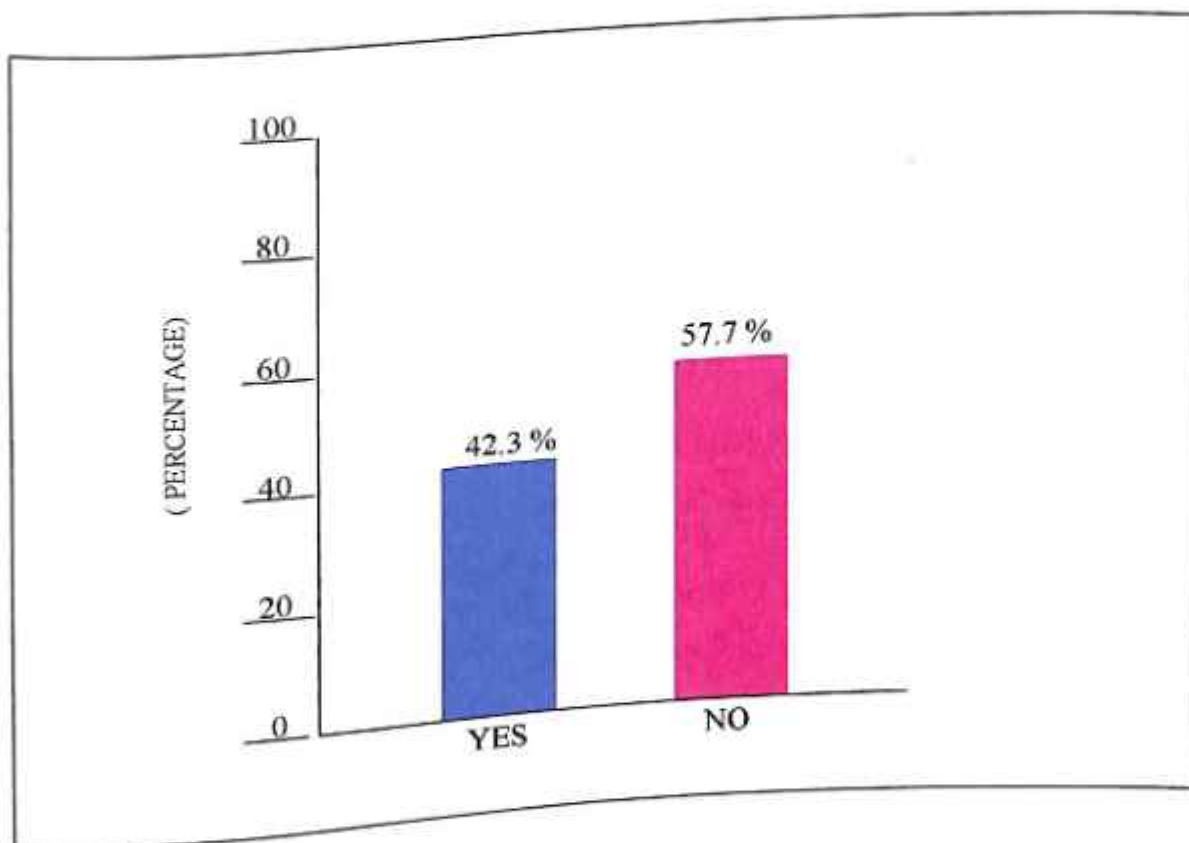


Table No. – 13

Rapid growth of population increase problems:

Responses	Frequency	Percentage.
Yes	294	98%
No.	6	2%

N=300

98% students feel that with the rapid growth of population many of our problems are increasing, whereas 2% students do not feel so. All most all students are aware of the population problem. The consequences of over population in their opinion are unemployment, water shortage, food shortage, low standard of living, price rise, declining education standards, increasing crime, rise in poverty, illiteracy etc. and so on.

Table No. – 14

Relationship between the population size of the country and the number of members in a family:

Responses	Frequency	Percentage.
Yes	240	80%
No.	60	20%

N=300

20% students feel there is no relationship between population of a country and number of members in the family. But 80% students feel that there is a relationship between population of a country and number of members of the family. It appears that the students who answered "no" may not have understood the question properly.

FIG.6 RELATIONSHIP BETWEEN THE POPULATION SIZE OF THE COUNTRY AND NUMBER OF MEMBERS IN A FAMILY.

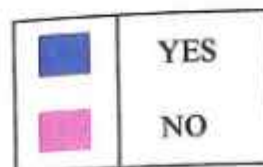
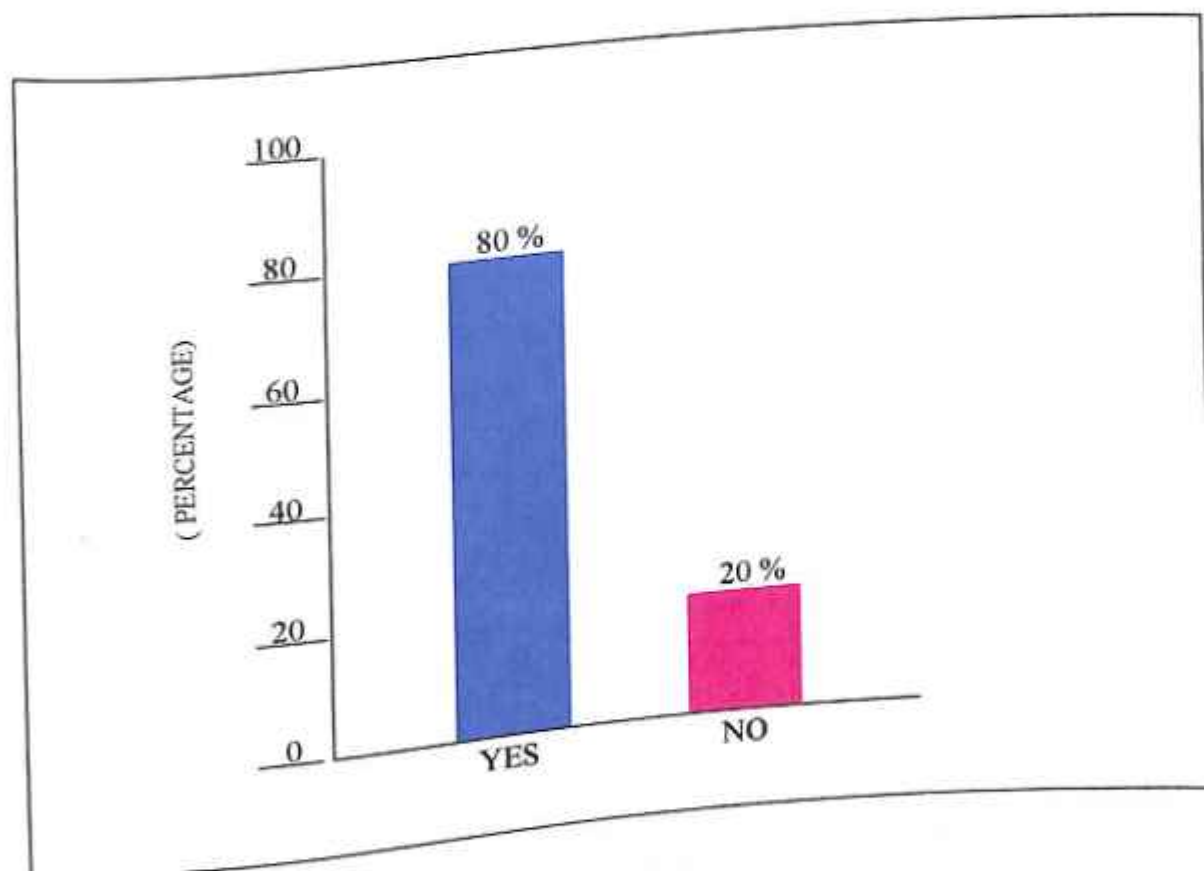


Table No. – 15.

Parents of a small family can pay proper attention, to the children:

Responses	Frequency	Percentage.
Yes	300	100%
No.	-	-

N=300

Cent percent students feel that parents of a small family can pay proper attention, love and care to their children.

Small family is advantageous, it enables the parents to have high standard of living, leads to a happy, peaceful & comfortable life, which is evident from the responses of the sampled students.

Table No. – 16.

Increase of population increases the sufferings of the people:

Responses	Frequency	Percentage.
Yes	294	98%
No.	6	2%

N=300

98% students understand that if population continues to increase the sufferings and miseries of people also increase; where as 2% do not feel so. All most all students are well aware about the miseries caused by over population.

FIG. 7 INCREASE OF POPULATION INCREASES SUFFERINGS OF THE PEOPLE.

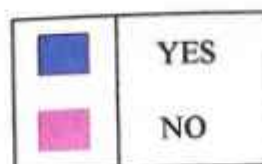
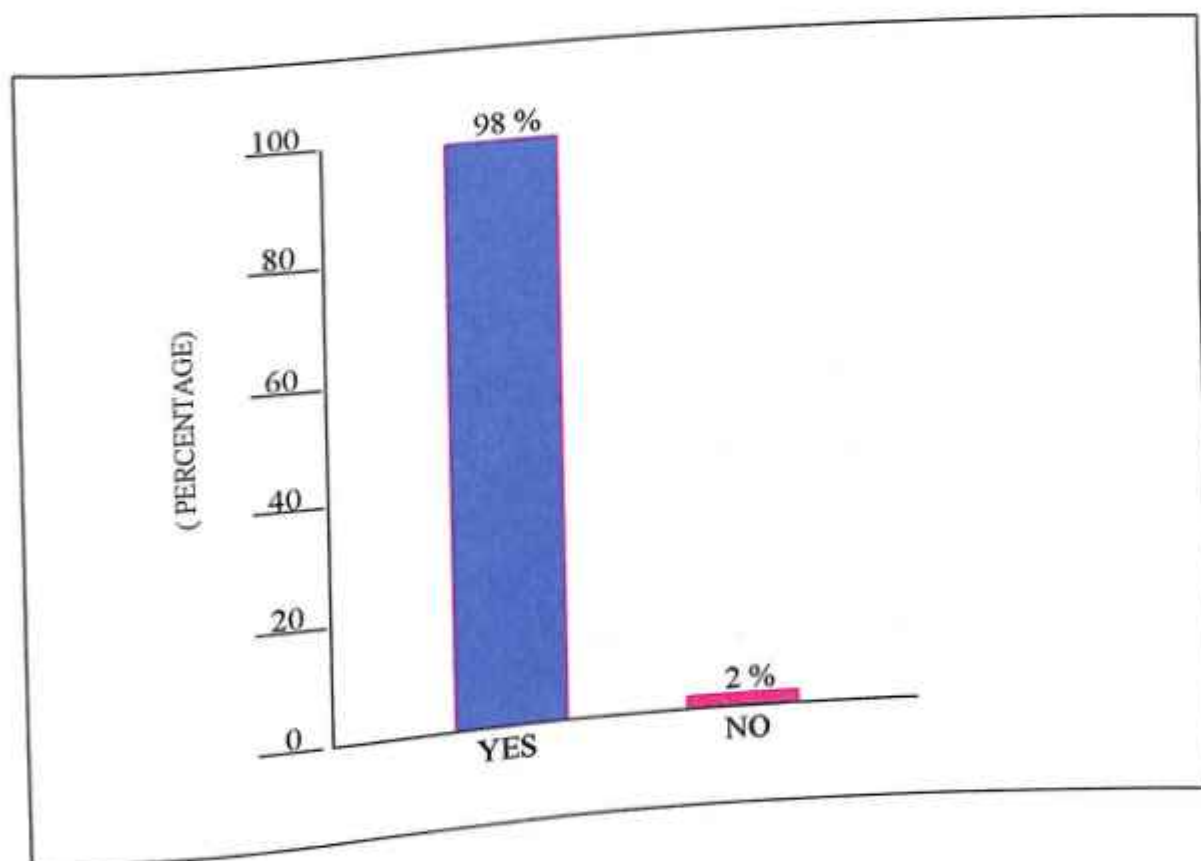


Table No. – 17.

Rapid increase of population, affects law and order system in the country:

Variables	Frequency	Percentage.
Improves	7	2.3%
Detoriates	159	53.0%
Does not improve	134	44.7%
Does not detoriate	-	-

N=300

Only 2.3% students do not feel that increase of population, law and order system in the country detoriates whereas 53% and 44.7% students respectively feel that with the increase of population, law and order situation detoriates, does not improve.

Table No. – 18.

With the increase of population in a densely populated country, the number of trees, the amount of oxygen in air, the bird and animal population:

Variables	Frequency	Percentage.
Increase	-	-
Does not increase	18	6%
Decrease rapidly	270	90%
Does not change	12	4%

N=300

Above table shows that most of the students feel that because of increase in population, the number of trees, and the amount of oxygen in the air, the bird and animal population decrease rapidly.

It reveals that students have understood the consequences of over population on the planet Earth.

Table No. – 19

The increase of population, the per capita Availability of land:

Variables	Frequency	Percentage.
Increase	-	-
Does not increase	36	12%
Decrease rapidly	246	82%
Does not change	18	6%

N=300

This table shows that 82% students feel that because of population increase the per capita availability of land decreases rapidly. This finding also proves that students have idea about the result of over population.

Table No. – 20

Idea about Family Planning:

Responses	Frequency	Percentage.
Yes	300	100%
No.	-	-

N=300

Table No. 20 shows that cent percent students have idea about family planning.

Table No. – 21

Necessity about Family Planning to control Population:

Responses	Frequency	Percentage.
Yes	300	100%
No.	-	-

N=300

Above Table shows cent percent students feel that family planning is necessary to control population.

Table No. – 22.

Idea about population education:

Responses	Frequency	Percentage.
Yes	235	78.3%
No.	65	21.7%

N=300

78.3% of the students have idea about population education but not very clear about it; whereas 21.7% students do not have any idea about population education. Further they were also asked about whether they were willing to learn about population education. The students expressed their willingness to learn more about the subject.

FIG. 8 IDEA ABOUT POPULATION EDUCATION.

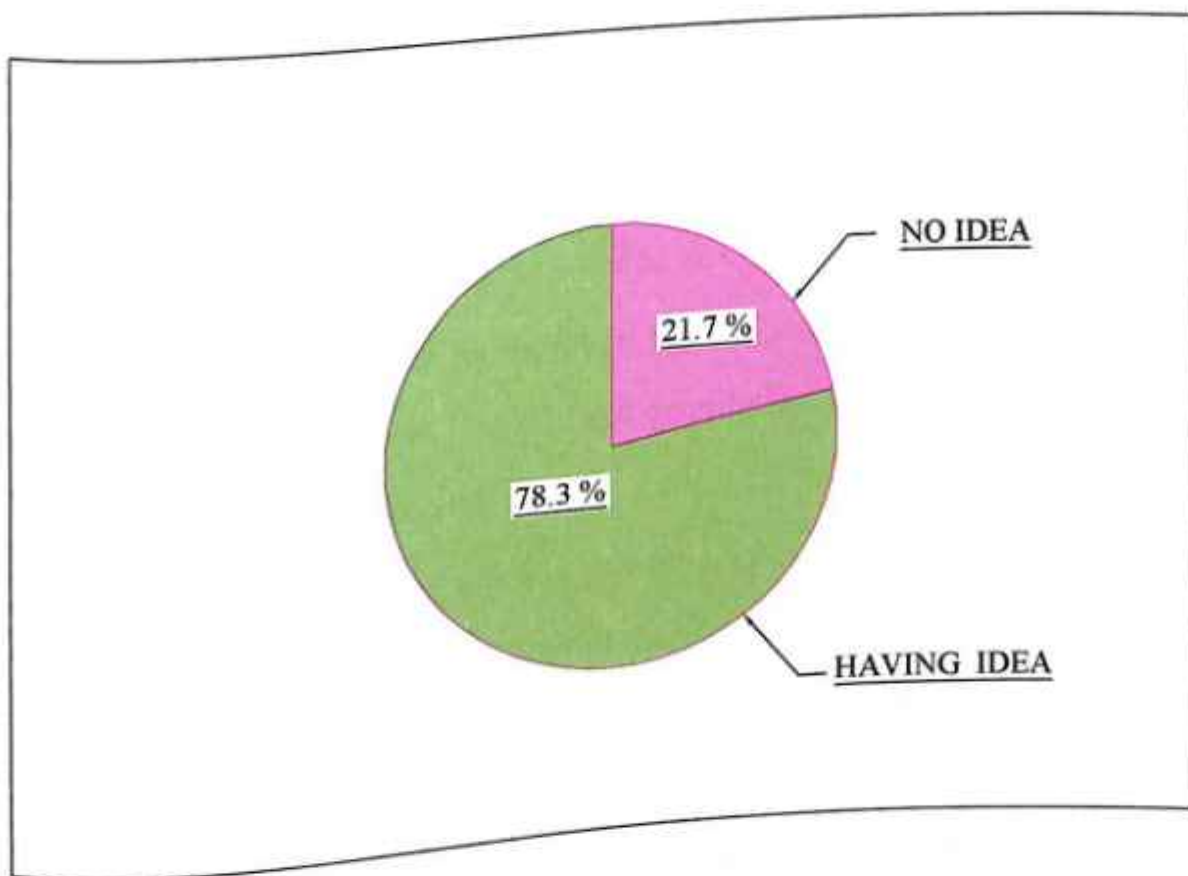


Table No. – 23.

Population education in degree curriculum:

Responses	Frequency	Percentage.
Yes	129	43%
No.	171	57%

N=300

Table 23 shows that 43% of the students have population education in their curriculum, whereas 57% of the students do not have population education in their curriculum.

In the degree curriculum of Gauhati University, population education is included in the subject education as a half paper in the part III (General and Major Course). In the part II, there is a compulsory paper "environment education for the students of Arts, Science & Commerce streams. A chapter on population education is included in the environment education paper. Therefore the students have heard about population education, but have not been able to define it correctly.

The environmental education is compulsory for 2nd yr. Arts, Science and commerce students but students are not motivated to the class as because the teachers are not properly oriented to teach. The teachers are also not well prepared to teach environment- population education. Apparently teachers have had no opportunity to learn about these subjects in their own schooling and no chance to learn about the subject- population in workshops or seminars outside of their own formal education.

Therefore the teachers should be given proper in-service training to impart population education effectively to degree students in the colleges.

FIG.9 POPULATION EDUCATION IN DEGREE CURRICULUM.

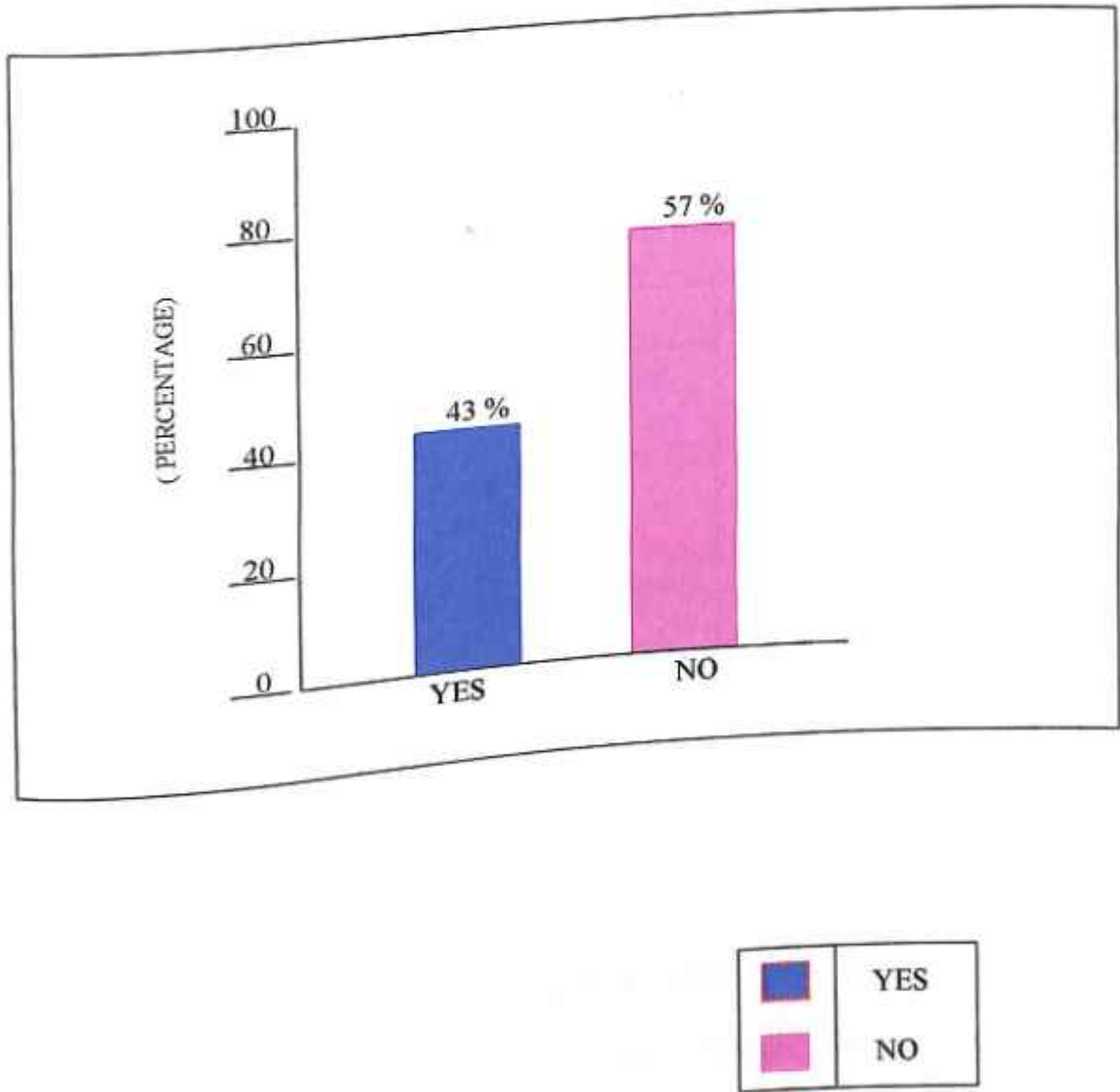


Table No. - 24

Necessity of Inclusion of population education in degree curriculum:

Responses	Frequency	Percentage.
Yes	291	97%
No.	9	3%

N=300

This table shows that all most all students feel that population education should be included in the college curriculum. They also feel that degree students are mature enough to understand the population problem.

Table No. - 25

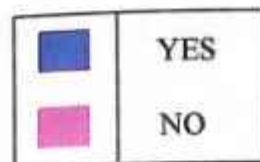
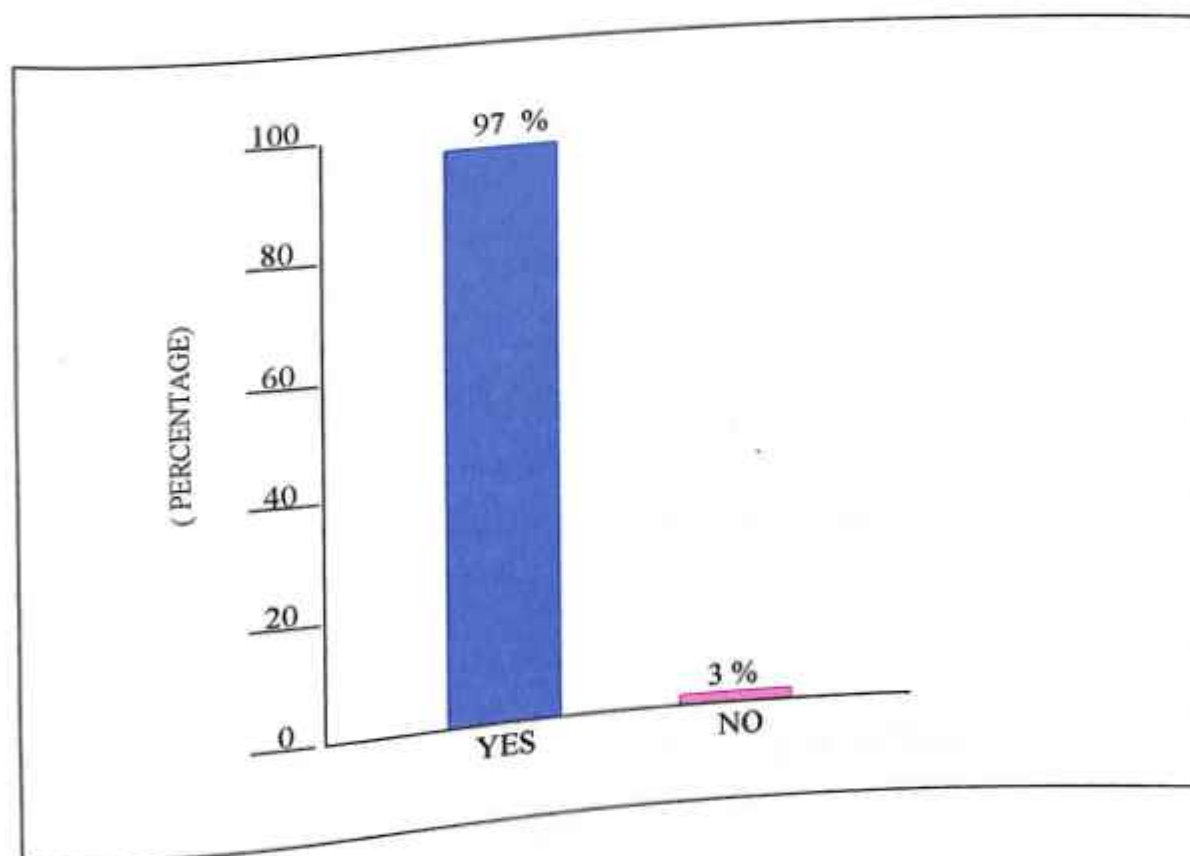
Need of population education:

Why population education	Frequency	Percentage
To make aware of the hazards of population explosion on the quality of life.	30	10%
To make appreciate the advantage of a small family.	25	8.3%
For better understanding of population growth.	29	9.7%
To help minimize the population problem.	27	9%
To cheek population explosion.	35	11.7%
All of above.	154	51.3%
Any other	—	—

N=300

Table 25 shows that all students feel the need of population education in the college curriculum due to various reasons. While 10% students feel the need to make them aware of the hazards of population explosion, 8.3% appreciate the advantage of a small family. Equal number of students i.e.

FIG. 10 NECESSITY OF INCLUSION OF POPULATION EDUCATION
IN DEGREE CURRICULUM.



(9.7% and 9%) expresses the need for understanding population growth and to minimize the population problem. An eleven percent of students need population education to check population explosion. As a whole 51.3% students need population education for all the reasons cited above.

Table No. – 26.

Population education is necessary for:

Variables	Frequency	Percentage.
Boys only	-	-
Girls only	-	-
Both	300	100%
No. idea	-	-

N=300

Cent percent students feel that population education is necessary for both boys & girls. That shows the increasing awareness about population education.

The following views have been obtained from the students from some open ended questions.

- 1) Almost all students feel that unemployment is directly related to unchecked population growth.
- 2) The students feel that population explosion affects our day to day life by increasing unemployment, terrorism, deforestation, malnutrition, a decrease in per capita income, widening gap between rich and poor, increase in poverty & illiteracy among poor, environmental degradation and deterioration of standard of education and standard of living.

- 3) The students are willing to learn more about population situation of the country and relevance of population education.
- 4) The students feel that to make family planning program successful awareness about population situation is important. Hence inclusion of population education is essential.
- 5) Almost all students feel that India's population is increasing in an alarming rate because of illiteracy and lack of awareness about family planning among the general public.

Following analysis are made to compare Male and Female student's view.

Table No -27

Awareness about present population of Guwahati:

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Yes	16	10.7%	20	13.3%
No	134	89.3%	130	86.7%
N= 150			N= 150	

10.7% boys and 13.3% girls know that present population of Guwahati; whereas most of the boys and girls do not know the present population of Guwahati.

FIG. 11 AWARENESS OF PRESENT POPULATION OF GUWAHATI.

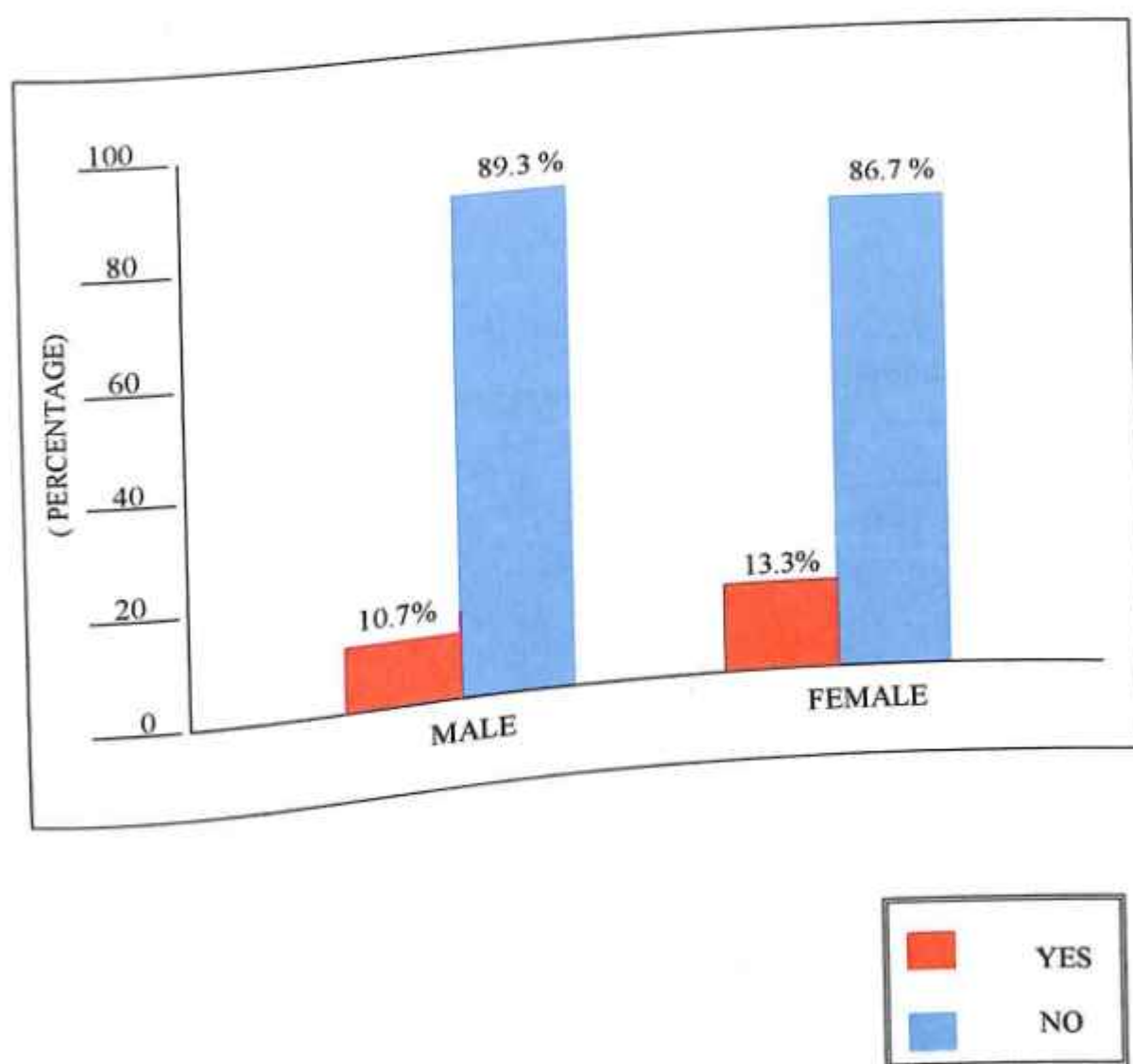


Table No -28

India is set to overtake china and become the most populous country in the world within a very short period:

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Yes	88	58.7%	96	64%
No	62	41.3%	54	36%
N= 150			N= 150	

58.7% male and 64% female students have idea that India will become the most populous country in the world within a very short period. But 41.3% male and 36% female students do not have any idea.

Table No -29

Population of India is growing at the rate of about:

Variables	Male		Female	
	Frequency	Percentage	Frequency	Percentage
One child per second	40	26.7%	36	24%
Two child per sec.	33	22%	37	24.7%
Three child per sec.	38	25.3%	42	28%
More than 4 child per sec.	39	26%	35	23.3%
No idea	-	-	-	-
N=150			N=150	

This table shows that students (both male and female) are not clear about the India's growing rate of population but they have an idea that India's population is growing very fast.

Table No -30

Population explosion affects day to day life:

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Yes	135	90%	132	88%
No	15	10%	18	12%
N= 150			N= 150	

90% boys and 88% girls viewed that population explosion affect day to day life, whereas few number of student's do not feel so. It may be that they do not understand the meaning of the question.

Table No -31

Class rooms are over crowded:

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Yes	70	46.7%	75	50%
No	80	53.3%	75	50%
N= 150			N= 150	

46.7% boys and 50% girls feel that their class-rooms are overcrowded because of population explosion, 53.3% male students and 50% female students do not feel so. The views differ because of nature of location, communicational advantage/ disadvantages and degree of availability of infrastructure.

FIG. 13 POPULATION EXPLOSION AFFECTS DAY TO DAY LIFE.

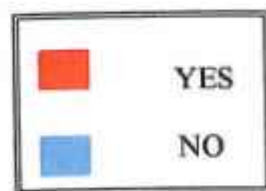
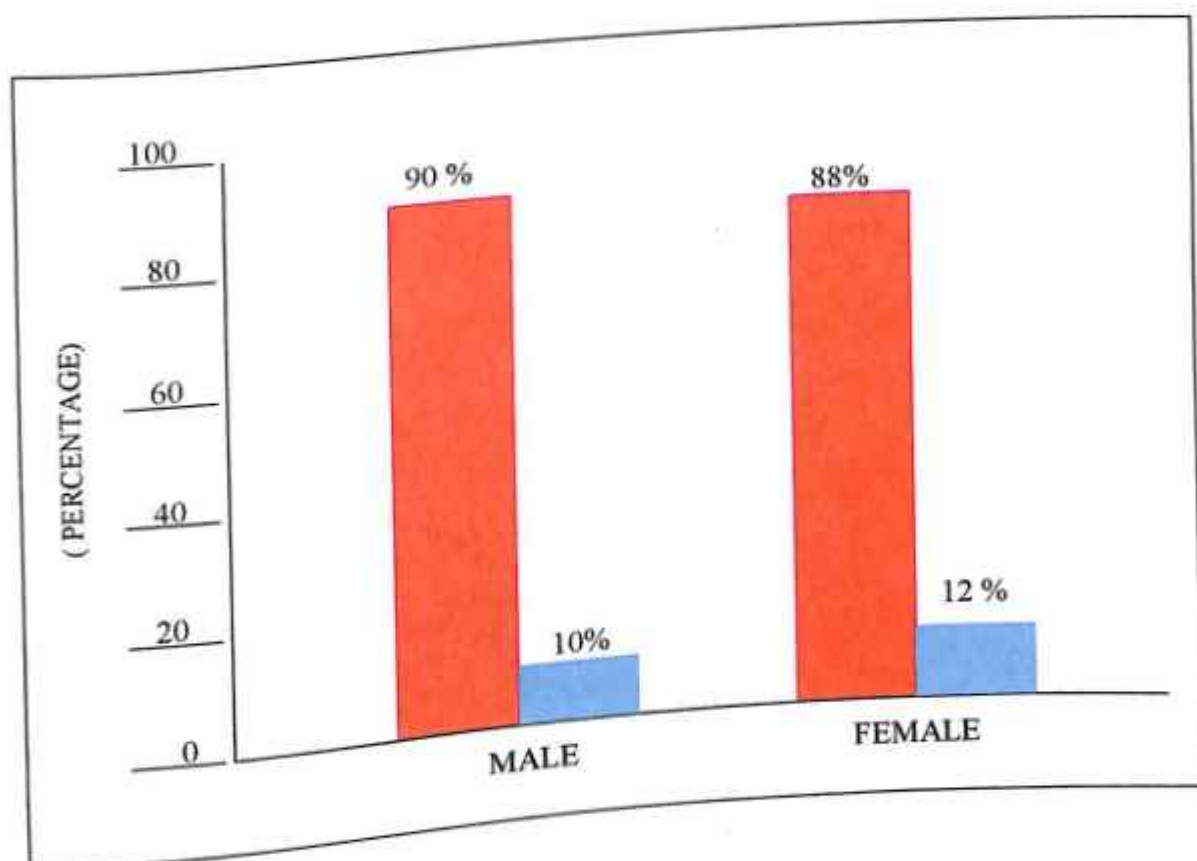


Table No -32

Open space in locality:

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Yes	67	44.7%	60	40%
No	83	55.3%	90	60%
N= 150			N= 150	

44.7% male and 40% female students say that they have open spaces in their locality. 55.3% male and 60% female students say that they do not have open space in their locality due to increase in number of buildings to cater to the housing needs of ever growing population.

Table No -33

A small family is a happy family:

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Yes	148	98.7%	149	99.3%
No	2	1.3%	1	0.7%
N= 150			N= 150	

98.7% male students and 99.3% female students believed that a small family is a happy family whereas a mere 1.3% male and 0.7% female students do not believe so.

Table No -34

Rapid growth of population increases problem:

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Yes	148	98.7%	146	97.3%
No	2	1.3%	4	2.7%
N= 150			N= 150	

98.7% male students and 97.3% female students feel that with the rapid growth of population many of our problems are increasing whereas mere 1.3% male and 2.7% female students do not feel so. All most all students are aware of the population problems. They viewed that population explosion creates lots of problems like unemployment, water shortage, food shortage, L.P.G. shortage, low standards of living, deforestation and malnutrition. Per-capita income is decreasing; widening gap between rich and poor, increasing price rise, crime in society, and declining education standards, rise in poverty, illiteracy, pollution and so on.

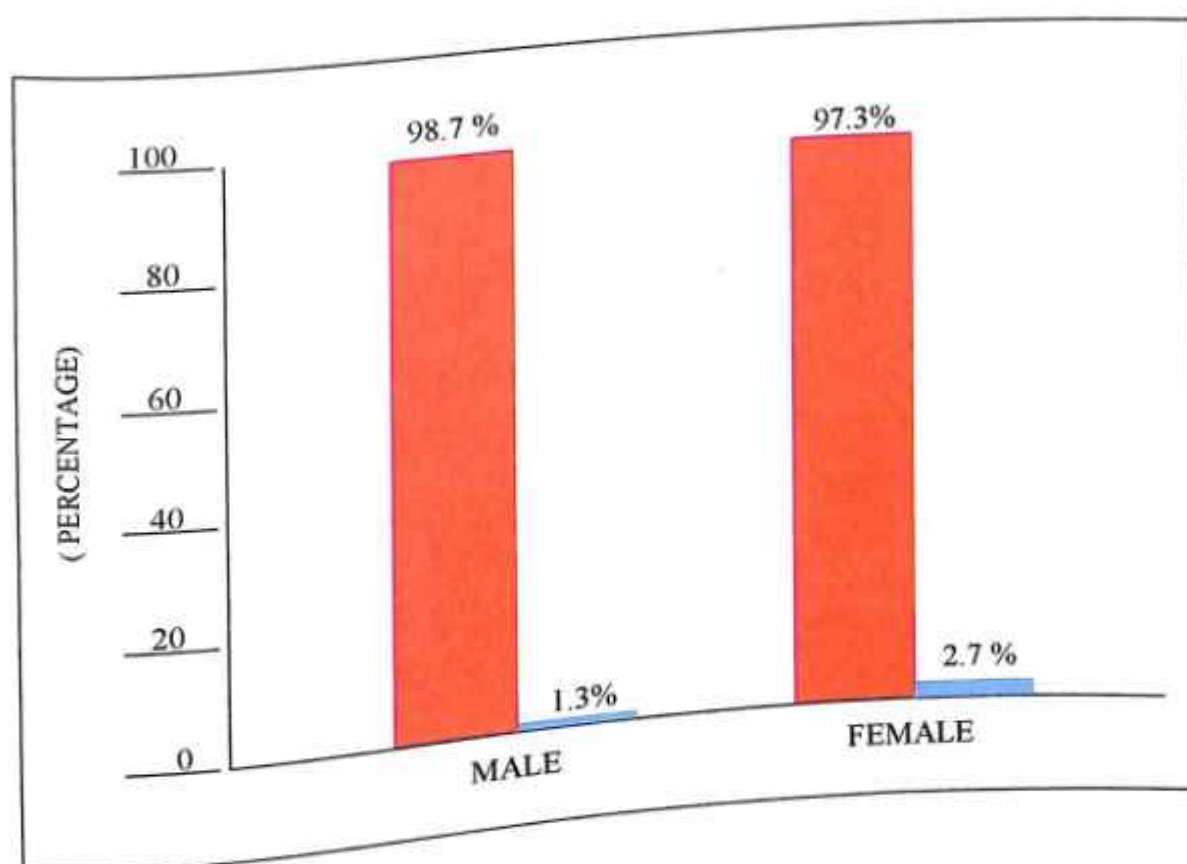
Table No -35

Relationship between the population size of the country and the number of members in a family:

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Yes	122	81.3%	128	85.3%
No	28	18.7%	32	14.7%
N= 150			N= 150	

81.3% male and 85.3% female students feel that there is a relationship between population of a country and number of members of the family;

FIG.14 RAPID GROWTH OF POPULATION INCREASES LOTS OF
PROBLEM.



whereas 18.7% male and 14.7% female students feel there is no relationship between population of a country and number of members in the family. It appears that the students who answered "no" may not understand the question properly.

Table No -36

Parents of a small family can pay proper attention love & care to the children:

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Yes	150	100%	150	100%
No	—	—	—	—

N= 150

Cent percent students both male and female feel that parents of a small family can pay proper attention, love and care to their children.

Table No -37

Increase of population increases the sufferings of the people;

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Yes	146	97.3%	148	98.7%
No	4	2.7%	2	1.3%

N= 150

97.3% male and 98.7% female students understand that if population continues to increase the sufferings and miseries of people also increase which is evident that all most all students are well aware about the miseries caused by population explosion.

Table No -38

Rapid increase of population, affects law and order system in the country;

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Improves	3	2%	4	2.7%
Detoriates	76	50.7%	83	55.3%
Does not improve	71	47.3%	63	42%
Does not detoriate	—		—	
N= 150			N= 150	

2% male and 2.7% female students feel that increase of population improves the law and order system in the country. 50.7% male and 55.3% female students feel that rapid increase of population detoriates the law and order system in the country. Whereas 47.3% male and 42% female students feel that, with the increase of population law and order situation does not improve.

It is evident from the responses of the students that all most all students feel the repercussion of rapid increase of population on law and order situation in the country.

Table No -39

With the increase of population in a densely populated country, the number of trees, the amount of oxygen in air, the bird and animal population:

Variables	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Increase	--	--	--	--
Does not increase	8	5.3%	10	6.7%
Decrease rapidly	136	90.7%	134	89.3%
Does not change	6	4%	6	4%
N= 150			N= 150	

Above table shows that most of the students (both male and female) feel that because of increase of population, the number of trees, and the amount of oxygen in the air, the bird and animal population decrease rapidly.

It reveals that both male and female students are quite aware about the consequences of over population on the planet Earth.

Table No -40

The increase of population, the per capita availability of land:

Variables	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Increase	--	--	--	--
Does not increase	19	12.7%	17	11.3%
Decrease rapidly	122	81.3%	124	82.7%
Does not change	9	6%	9	6%
N= 150			N= 150	

This table shows that 81.3% male and 82.7% female students feel that because of increase of population, the per capita availability of land decrease rapidly.

This finding proves that both male and female students have idea about the result of over population.

Table No -41

Idea about family planning:

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
YES	150	100%	150	100%
NO	-	-	-	-
N= 150			N= 150	

This table shows that cent percent male and female students have idea about family planning.

Table No -42

Necessity of family planning to control population:

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
YES	150	100%	150	100%
NO	-	-	-	-
N= 150			N= 150	

Cent percent male and female students feel that family planning is necessary to control population.

Table No -43

Idea about population education:

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
YES	115	76.7%	120	80%
NO	35	23.3%	30	20%
N= 150			N= 150	

76.7% male and 80% female students have idea about population education but not very clear about it; whereas 23.3% male and 20% female students do not have any idea about population education.

FIG.15 IDEA ABOUT POPULATION EDUCATION

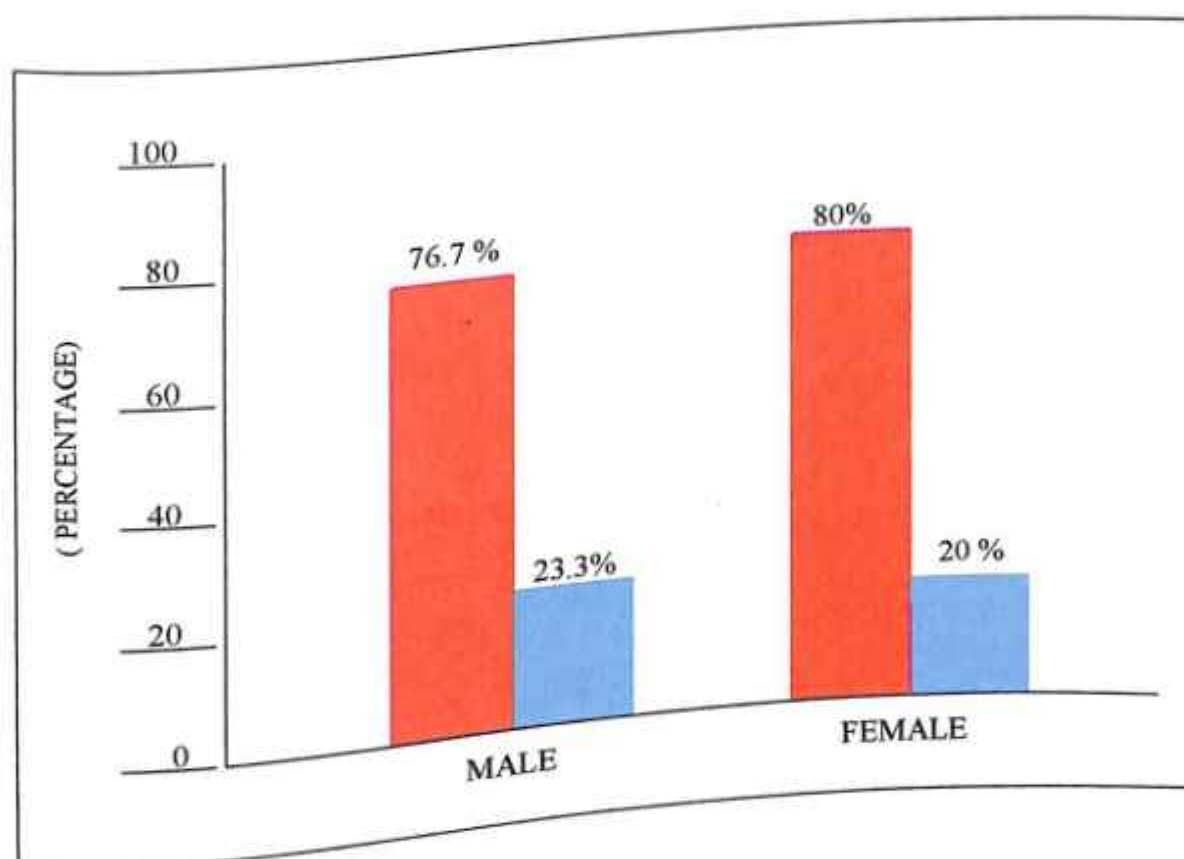


Table No -44

Necessity of Inclusion of population education in degree curriculum:

Responses	Male		Female	
	Frequency	Percentage	Frequency	Percentage
YES	145	96.7%	146	97.3%
NO	5	3.3%	4	2.7 %
N= 150			N= 150	

This table shows that all most all (both male and female) feel that population education should be included in the college curriculum. They also feel that degree students are mature enough to understand the population problem.

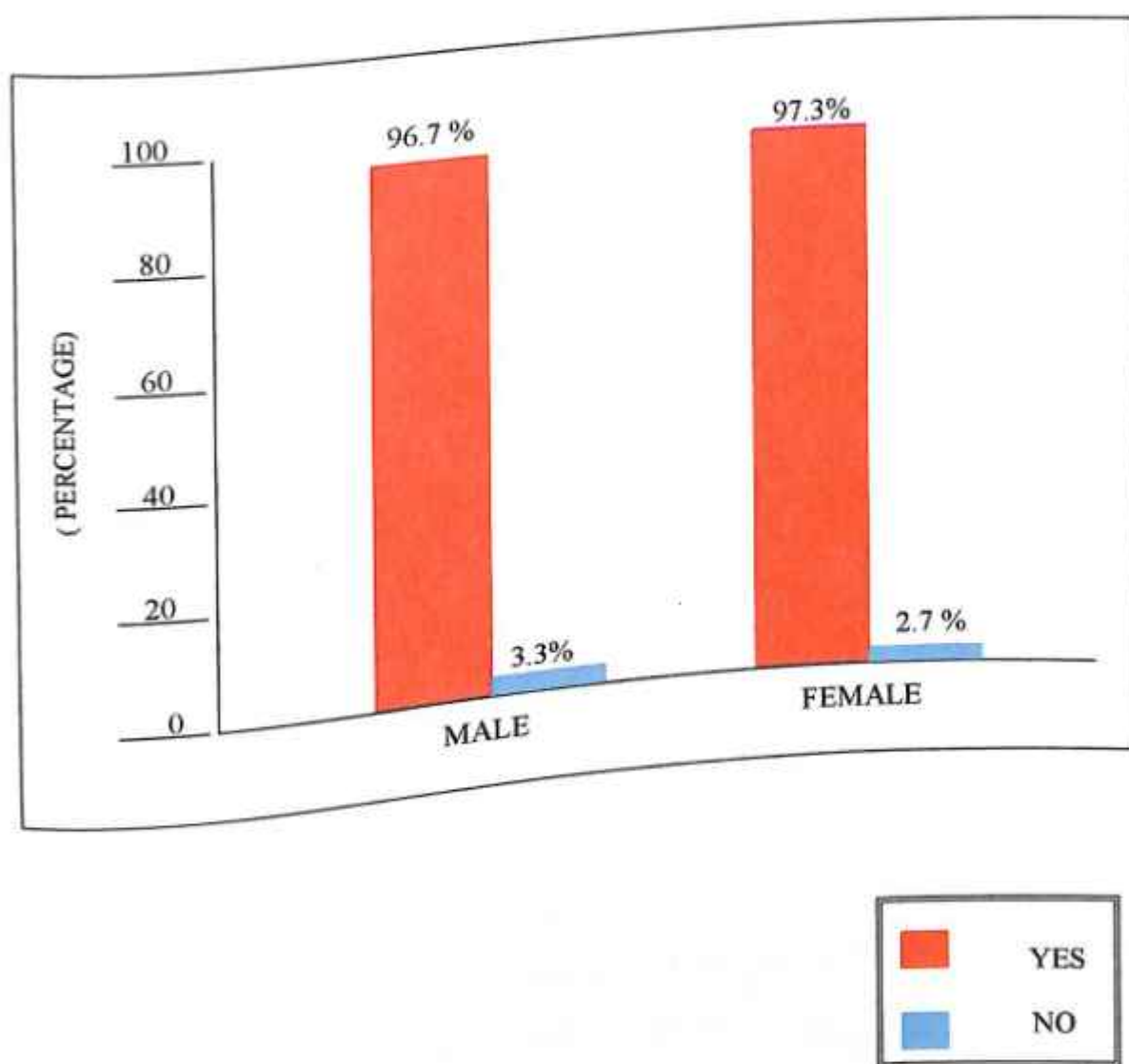
Table No -45

Population education is necessary for:

Variable	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Boys only	-	-	-	-
Girls only	-	-	-	-
Both	150	100%	150	100%
No	-	-	-	-
N= 150			N= 150	

Cent percent male and female students feel that population education is necessary for both boys and girls. This shows the increasing awareness about population education among students.

FIG.16 NECESSITY OF INCLUSION OF POPULALION EDUCATION
IN DEGREE CURRICULUM.



From the above finding it can be said that the student's knowledge and understanding of population situation and education and awareness level of students about the ill effects of population growth and their attitude towards the inclusion of population education in the curriculum is almost same for both sexes. Hence the assumption formulated for the investigation is not retained.

Following analysis are made to compare student's view according to location.

Table No -46

Awareness about present population of Guwahati:

Responses	Urban		Semi urban		Rural	
	Freque ncy	Percent age	Freque ncy	Percenta ge	Freque ncy	Percentage
Yes	21	12.2 %	7	7.9%	8	20.5%
No	151	87.8%	82	92.03%	31	79.5 %
	N=172		N=89		N=39	

12.2 % urban, 7.9% Semi urban and 20.5% rural students know the present population of Greater Guwahati; whereas most of the students do not know the present population of greater Guwahati.

FIG. 17 AWARENESS OF PRESENT POPULATION OF GUWAHATI.

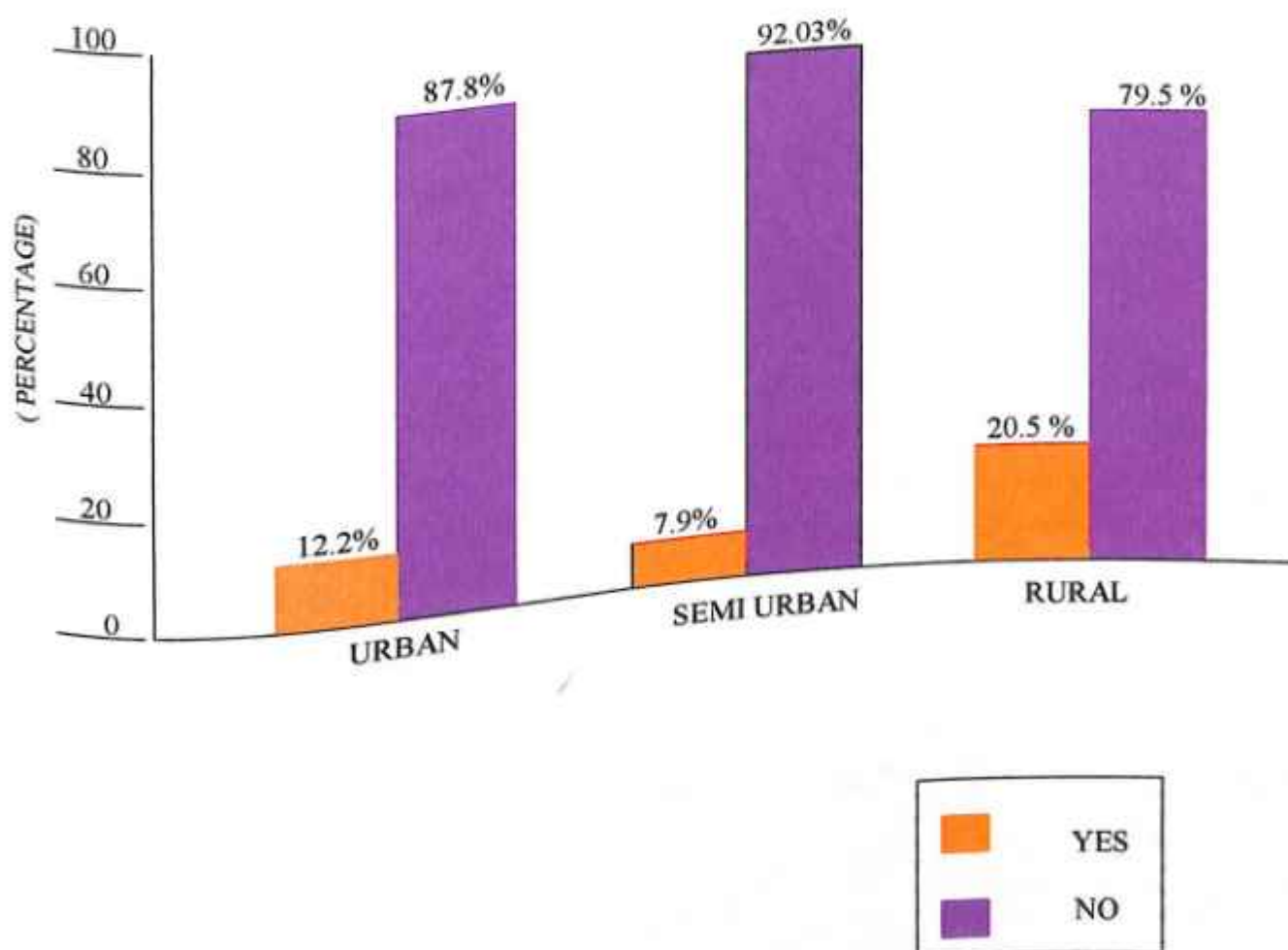


Table No -47

India is set to overtake china and become the most populous country in the world within a very short period:

Responses	Urban		Semi urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	115	66.9 %	45	50.6%	24	61.5%
No	57	33%	44	49.4%	15	38.5 %
	N=172		N=89		N=39	

66.9 % urban, 50.6 % Semi urban and 61.5% rural students respectively have idea that India will become the most populous country in the world within a very short period; whereas 33.1% urban, 49.4% semi urban and 38.5% rural students have no idea about it.

Table No -48

Population of India is growing at the rate of about:

Responses	Urban		Semi urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
One child per second	45	26.2 %	21	23.6%	10	25.6%
Two child per second	41	23.9%	20	22.6%	9	23.0 %
Three child per second	48	27.9%	22	24.7%	10	25.7%
More than 4 child per second	38	22%	26	29.2%	10	25.7%
No idea	--	--	--	--	--	--
	N=172		N=89		N=39	

FIG.18 INDIA IS SET TO OVERTAKE CHINA AND BECOME THE MOST POPULOUS COUNTRY IN THE WORLD WITHIN A VERY SHORT PERIOD.

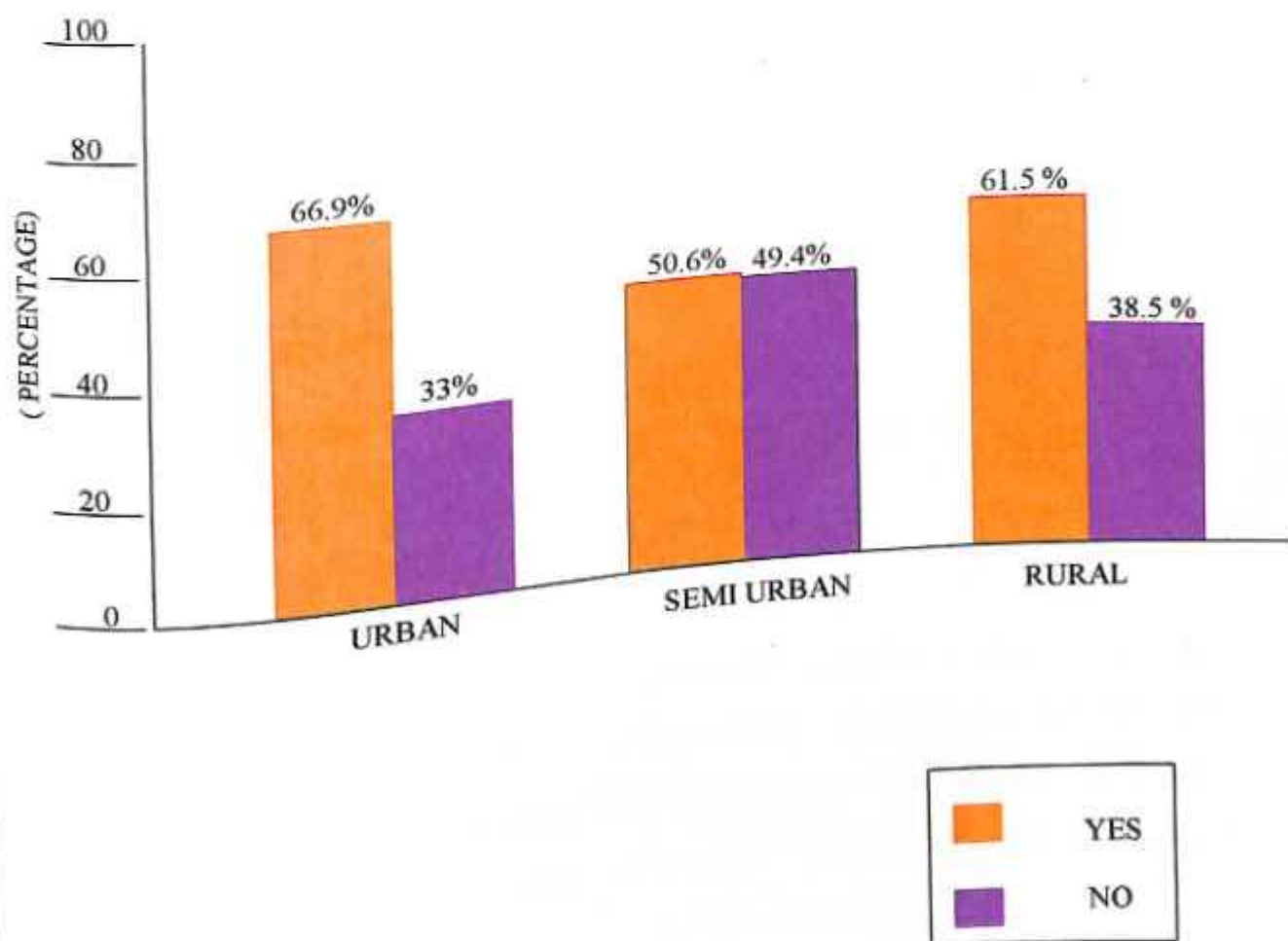


Table No 48 shows that all the students from urban, semi urban and rural areas are not clear about India's growing rate of population but they have an idea that India's population is growing very fast.

Table No -49

Population explosion affects day to day life:

Responses	Urban		Semi urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	154	89.5%	80	89.9%	33	84.6%
No	18	10.5%	9	10.1%	6	15.4%
	N=172		N=89		N=39	

89.5% urban students, 89.9% semi urban students and 84.6% rural students feel that population explosion affects day to day life; whereas 10.5% urban, 10.1% semi urban and 15.4% rural students do not feel so or they may not understand the question.

Table No -50

Class-rooms are overcrowded:

Responses	Urban		Semi urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	85	49.4%	38	42.7%	20	51.3%
No	87	50.6%	51	57.3%	19	48.7%
	N=172		N=89		N=39	

49.4% urban, 42.7% semi urban and 51.3% rural students feel that their class-rooms are over crowded because of increase of population but 50.6% urban, 57.3% semi urban and 48.7% rural students do not feel so. The views differ because of nature of location, communicational advantage / disadvantages and degree of availability of infrastructure.

FIG.19 POPULATION EXPLOSION AFFECTS DAY TO DAY LIFE.

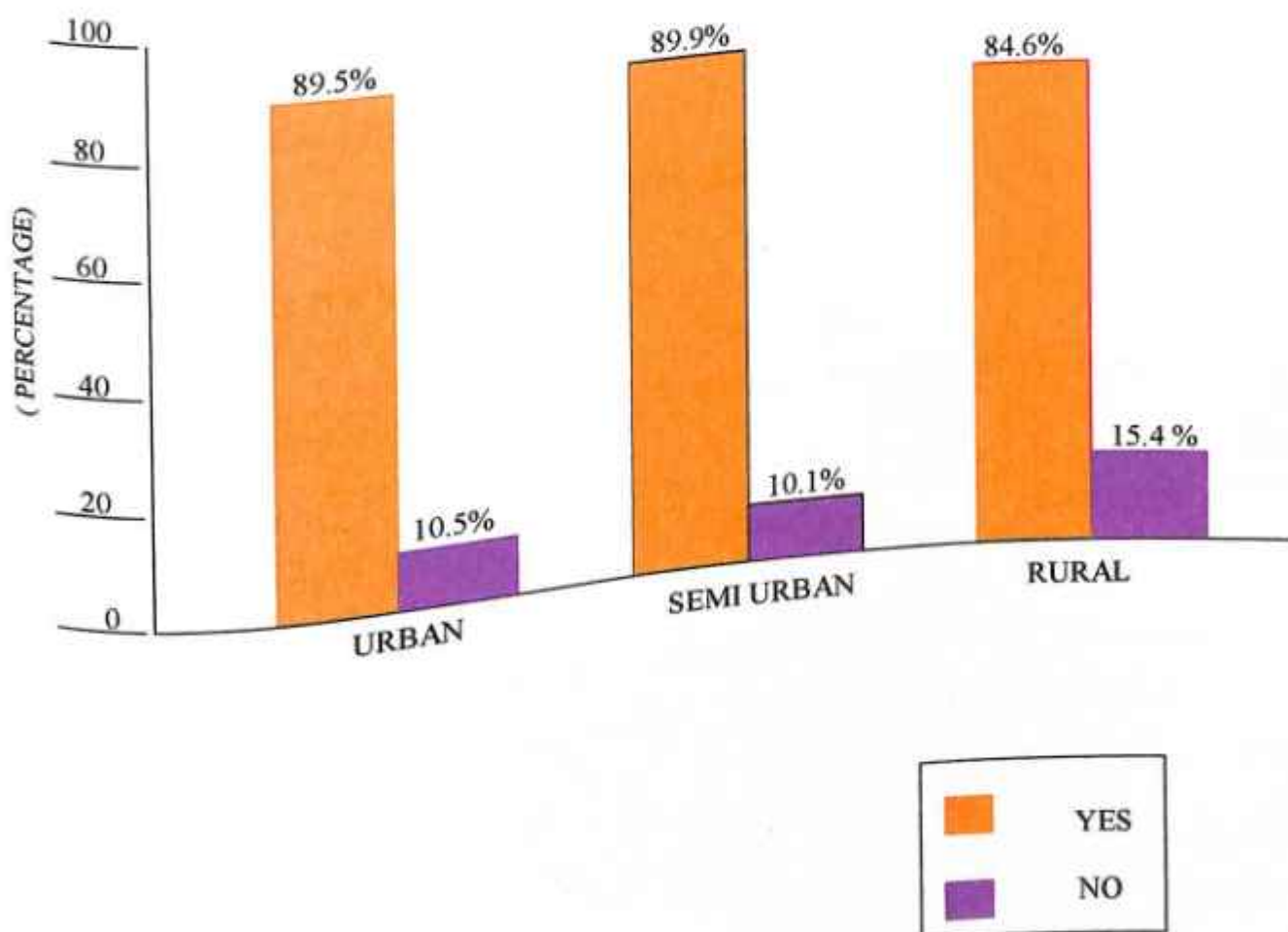


Table No -51

Open space in locality:

Responses	Urban		Semi urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	52	30.2%	47	52.8%	28	71.8%
No	120	69.8 %	42	47.2%	11	28.2%
N=172			N =89		N =39	

30.2% urban, 52.8% semi urban and 71.8% rural students say that they have open space in the locality. whereas 69.8% urban , 47.2% semi urban and 28.2% rural students say that they do not have open space in their locality due to increase in number of buildings to cater to the housing needs of ever growing population.

Table No -52

A small family is a happy family:

Responses	Urban		Semi urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	172	100%	88	98.9%	37	94.9%
No	--	--	1	1.1%	2	5.1%
N=172			N =89		N =39	

100% urban, 98.8% semi urban and 94.9% rural students believe that a small family is a happy family whereas a mere 1.1% semi- urban and 5.1% rural students do not believe so.

Table No -53

Rapid growth of population increase problems:

Responses	Urban		Semi urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	169	98.3%	87	97.8%	38	97.4%
No	3	1.7%	2	2.2%	1	2.6%
N=172			N=89		N=39	

98.3% urban, 97.8% semi urban and 97.4% rural students feel that rapid growth of population increases lots of problems, whereas 1.7 % urban, 2.2% semi-urban and 2.6% rural students do not feel so.

According to the students the problems created by over population are, unemployment, Environmental degradation, water shortage, food shortage, pollution, low standard of living, malnutrition, poverty, illiteracy, declining educational standard, increasing crime and so on.

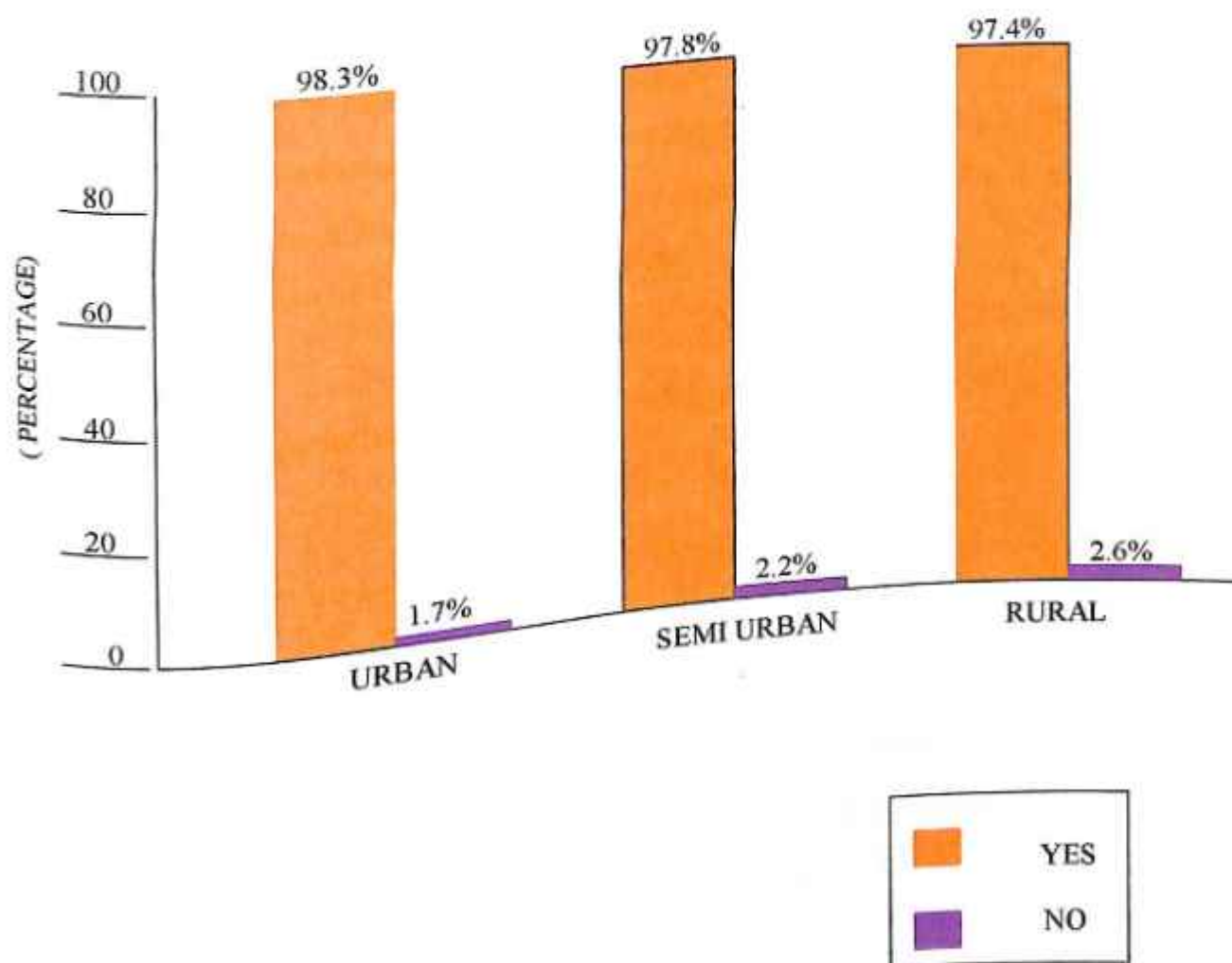
Table No -54

Relationship between the population size of the country and the number of members in a family:

Responses	Urban		Semi urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	140	81.4%	69	77.5%	31	79.5%
No	32	18.6%	20	22.5%	8	20.5%
N=172			N=89		N=39	

18.6% urban, 22.5% semi urban and 20.5% rural students think that there is no relationship between population of a country and number of members in the family. Whereas 81.4%, urban, 77.5% semi-urban and 79.5% rural students think that there is a relationship between population of a country

FIG.20 RAPID GROWTH OF POPULATION INCREASES LOTS OF PROBLEMS.



and number of member of the family. It appears that the students who answered "no" may not understand the question properly.

Table No -55

Parents of a small family can pay proper attention, love and care to the children:

Responses	Urban		Semi urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	172	100%	89	100%	39	100%
No	-	-	-	-	-	-
	N=172		N=89		N=39	

Cent percent urban, semi urban and rural students feel that parents of a small family can pay proper attention, love and care to the children. Small family is advantageous; it enables the parents to have high standard of living leading to a happy, peaceful and comfortable life, which is evident from the response of the sampled students.

Table No -56

Increase of population increases the suffering and miseries of people:

Responses	Urban		Semi urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	169	98.3%	87	97.8%	38	97.4%
No	3	1.7%	2	2.2%	1	2.6%
	N=172		N=89		N=39	

98.3% urban, 97.8% semi urban and 97.4% rural students believe that increase of population increases the sufferings and miseries of people.

This table shows that all most all students are well aware about the miseries caused by over population.

Table No -57

Rapid increase of population, affects law and order system in the country:

Variable	Urban		Semi urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Improves	3	1.7%	2	2.2%	2	5.1%
Detoriate	101	58.7%	32	36%	26	66.7%
Does not improve	68	39.6%	55	61.8%	11	28.2%
Does not detoriate	-	-	-	-	-	-
	N=172		N=89		N=39	

Only 1.7% urban, 2.2% semi urban and 5.1% rural students do not feel that with increase of population law and order system in the country detoriates whereas 58.7% and 39.6% urban , 36% and 61.8% semi urban and 66.7% and 28.2% rural students respectively feel that with the increase of population , law and order situation detoriates , does not improve.

Table No -58

With the increase of population in a densely populated country, the number of trees, the amount of oxygen in air, the bird and animal population:

Variable	Urban		Semi urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Increase	-	-	-	-	-	-
Does not increase	9	5.2%	5	5.6%	4	10.3%
Decrease	158	91.9%	80	89.9%	32	82%
rapidly					3	7.7%
Does not change	5	2.9%	4	4.5%		
	N=172		N=89		N=39	

Table no. 58 shows that most of the students (urban, semi-urban & rural) feel that because of increase of population, the number of trees, and the amount of oxygen in the air, the bird and animal population decrease rapidly.

It reveals that students have understood the consequences of over population on the planet earth.

Table No -59

The increase of population, the per capita availability of land:

Variable	Urban		Semi urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Increase	-	-	-	-	-	-
Does not	18	10.5%	13	14.6%	5	12.8%
increase						
Decrease	45	84.3%	69	77.5%	33	84.6%
rapidly						
Does not	9	5.2%	7	7.9%	1	2.6%
change						
N=172			N=89		N=39	

This table shows that 84.3% urban, 77.5% semi-urban and 84.6% rural students feel that because of population increase the per capita availability of land decrease rapidly. This finding also proves that all students have the idea about the result of over population.

Table No. 60

Idea about family planning:

Responses	Urban		Semi - urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	172	100%	89	100%	39	100%
No	-	-	-	-	-	-
	N=172		N=89		N=39	

This table shows that 100% students (urban, rural and semi urban) have idea about family planning.

Table No. 61

Necessity of family planning to control population:

Responses	Urban		Semi - urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	172	100%	89	100%	39	100%
No	-	-	-	-	-	-
	N=172		N=89		N=39	

Cent percent students from urban, semi urban and rural areas feel that family planning is necessary to control population.

Table No. 62

Idea about population education:

Responses	Urban		Semi - urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	130	75.6%	74	83.1%	31	79.5%
No	42	24.4%	15	16.9%	8	20.5%
N=172			N=89		N=39	

75.6% urban, 83.1% semi-urban and 79.5% rural students have idea about population education but not clear; whereas 24.4% urban, 16.9% semi-urban and 20.5% rural students do not have any idea about population education.

Table No. 63

Inclusion of population education in degree curriculum:

Responses	Urban		Semi - urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	168	97.7%	86	96.6%	37	94.9%
No	4	2.3%	3	3.4%	2	5.1%
N=172			N=89		N=39	

This table shows that almost all the students from urban, semi-urban and rural areas are in favour of inclusion of population education in degree curriculum.

FIG. 21 IDEA ABOUT POPULATION EDUCATION.

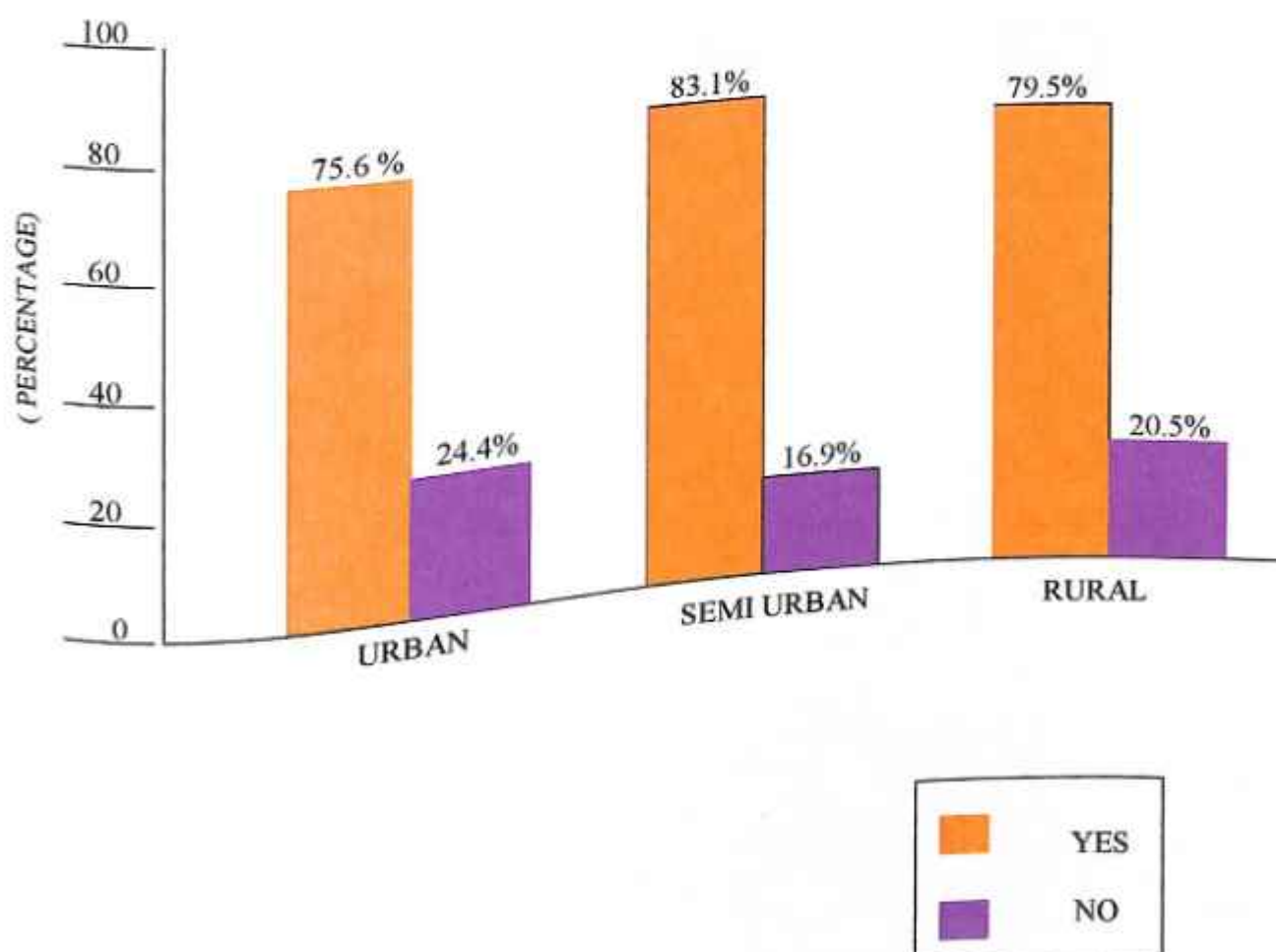


FIG.22 NECESSITY OF INCLUSION OF POPULATION EDUCATION
IN DEGREE CURRICULUM.

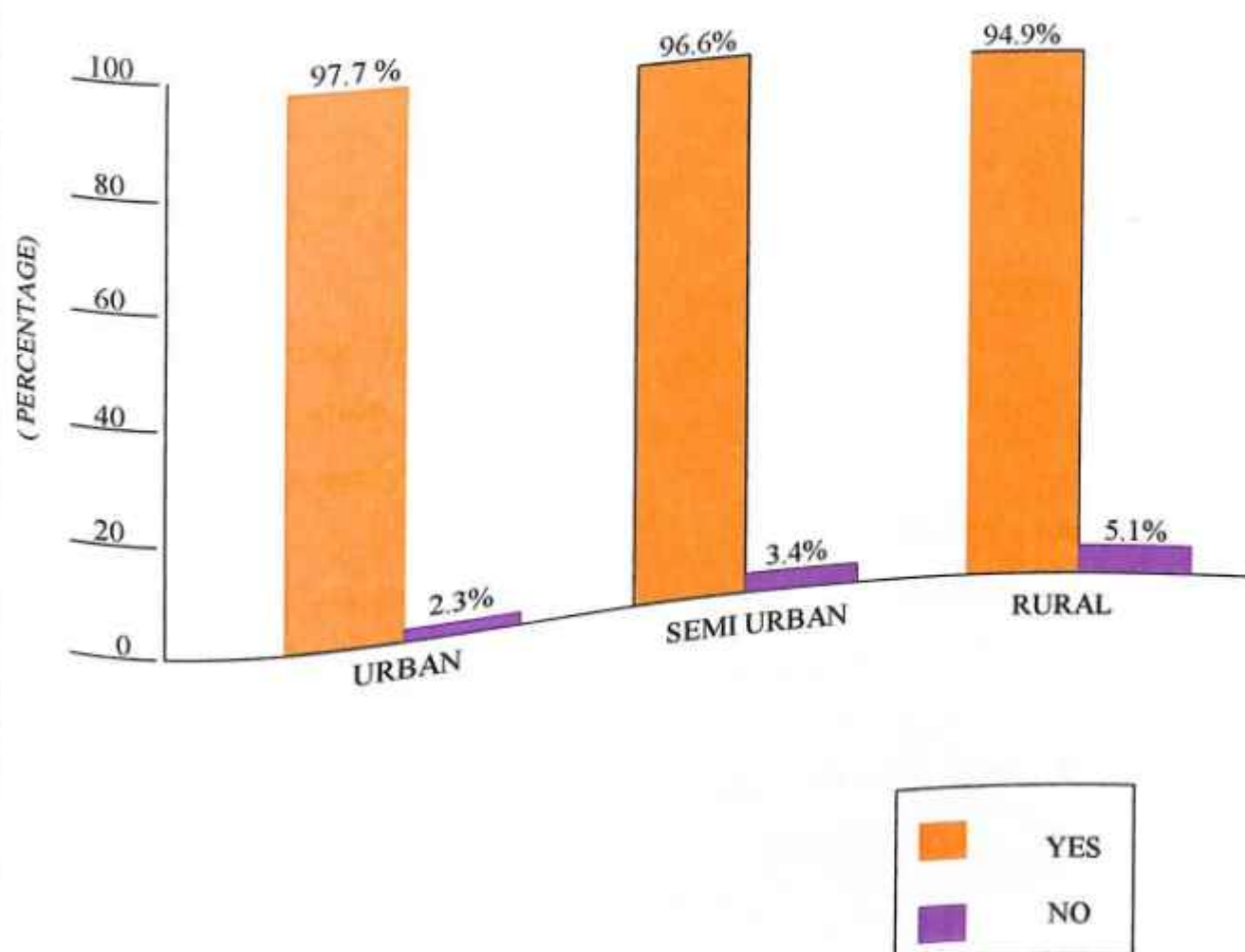


Table No. 64

Population education is necessary for:

Variable	Urban		Semi-urban		Rural	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Boys only	-	-	-	-	-	-
Girls only	-	-	-	-	-	-
Both	172	100%	89	100%	39	100%
No idea	--	--	--	--	--	--
	N=172		N=89		N=39	

Cent percent students from urban, semi urban and rural areas feel that population education is necessary for both boys and girls. This shows the increasing awareness about population education among students.

From the above findings it can be said that the student's knowledge and understanding of population situation and education and awareness level of students about the ill effects of population growth and their attitude towards the inclusion of population education in the curriculum is almost same for the students from urban, semi urban and rural areas. Hence the assumption formulated for the investigation is not retained.

Following analysis are made to compare student's view according to stream of study.

Table No. 65

Awareness about present population of Guwahati:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	10	10%	14	14%	12	12%
No	90	90%	86	86%	88	88%

N=100

N=100

N=100

10% arts, 14% Science and 12% Commerce students know the present population of Guwahati whereas most of the students do not know.

Table No. 66

India is to set overtake china and become the most populous country in the world within a very short period:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	61	61%	63	63%	60	60%
No	39	39%	37	37%	40	40%

N=100

N=100

N=100

61% Arts students, 63% Science and 60% Commerce students have idea that India will become the most populous country in the world within a very short period. But 39% Arts, 37% Science, and 40% Commerce students do not have any idea about it.

FIG.23 AWARENESS ABOUT PRESENT POPULATION OF GUWAHATI

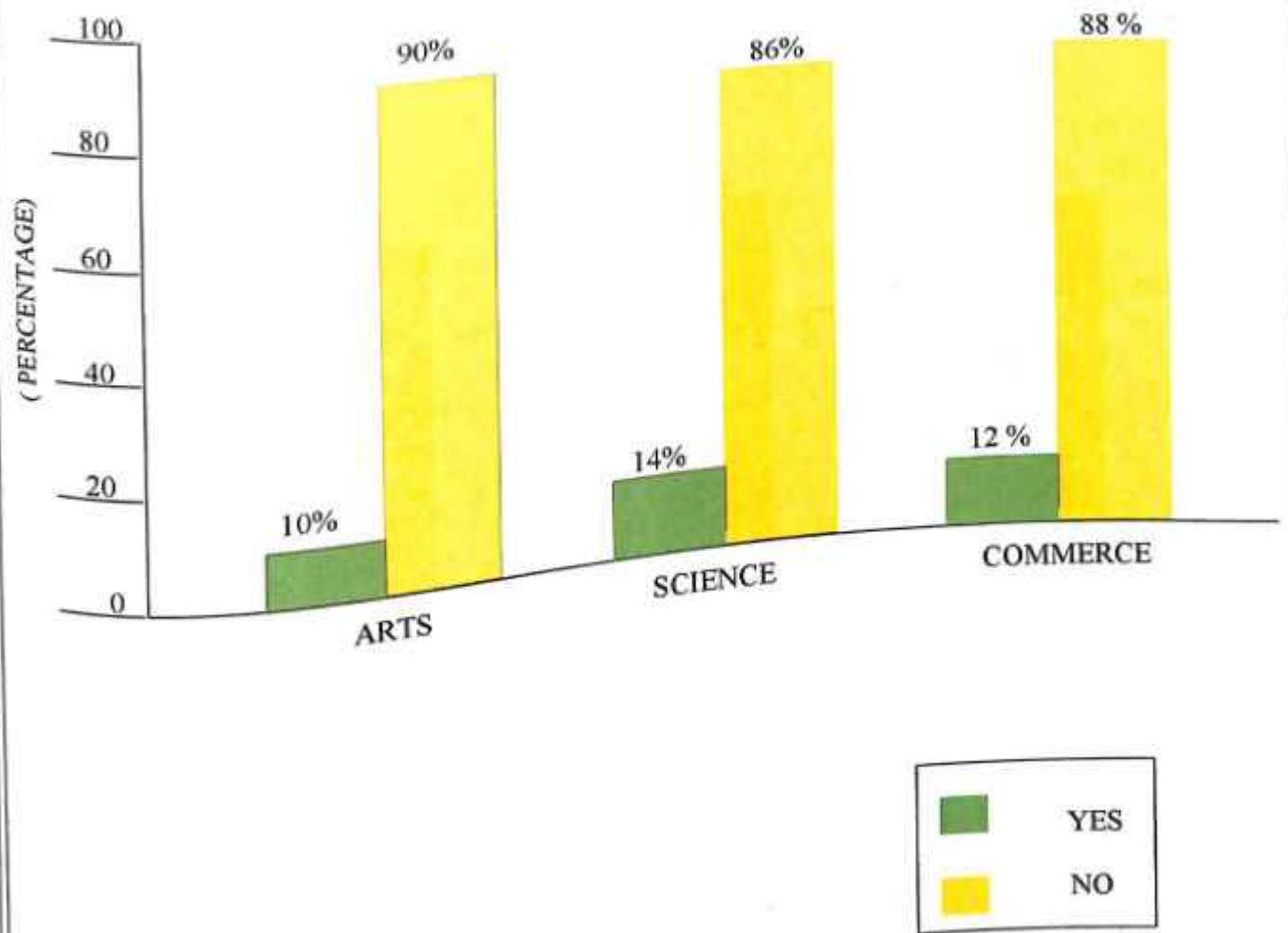


FIG. 24 INDIA IS TO SET OVERTAKE CHINA & BECOME THE MOST POPULOUS COUNTRY IN THE WORLD WITHIN A VERY SHORT PERIOD.

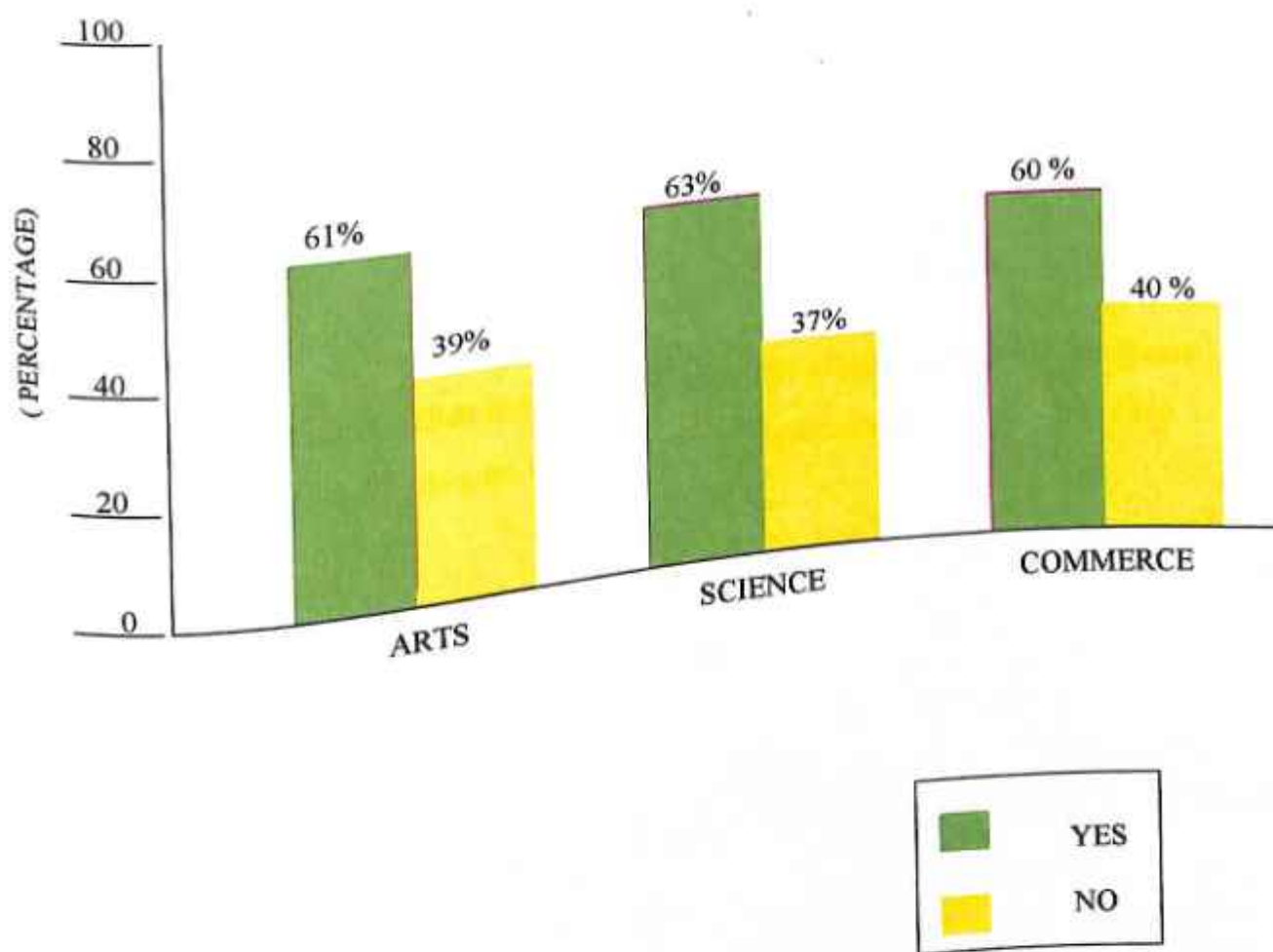


Table No. 67

India's population is growing at the rate of about:

Variable	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
One child per second	27	27%	25	25%	24	24%
Two child per second	27	27%	22	22%	25	25%
Three child per second	25	25%	27	27%	28	28%
More than four child per second	25	25%	26	26%	23	23%
No idea	—	—	—	—	—	—
N=100		N=100		N=100		

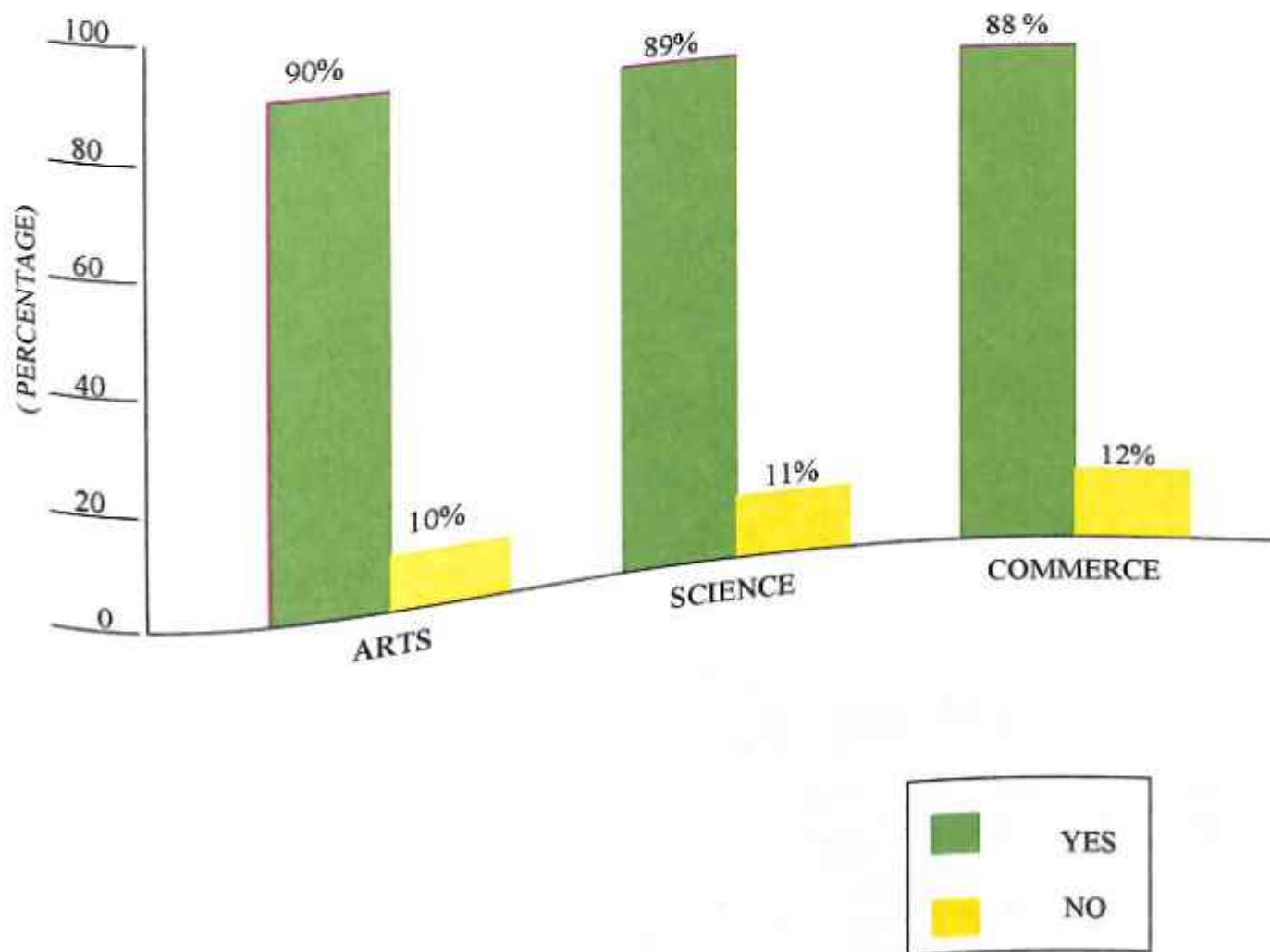
This table shows that students are not clear about India's growing rate of population but they have an idea that India's population is growing very fast.

Table No. 68

Population explosion affects day to day life:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	90	90%	89	89%	88	88%
No	10	10%	11	11%	12	12%
N=100		N=100		N=100		

FIG.25 POPULATION EXPLOSION AFFECTS DAY TO DAY LIFE .



90% Arts, 89% Science and 88% Commerce students feel that population explosion affects day to day life; whereas 10%, 11% and 12% Arts, Science and Commerce students respectively do not feel so. The students who answered "no" may be because of lack of awareness and may be that, they do not understand the meaning of the question.

Table No. 69

Class-rooms are overcrowded:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	53	53%	43	43%	47	47%
No	47	47%	57	57%	53	53%
N=100			N=100			

53% arts, 43% Science and 47% Commerce students feel that their class-rooms are overcrowded because of population explosion, but 47% arts, 57% Science and 53% Commerce students do not feel so. The views differ because of nature of location, communicational advantages/ disadvantages and degree of availability of infrastructure in the colleges etc.

Table No. 70

Open space in locality:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	43	43%	44	44%	40	40%
No	57	57%	56	56%	60	60%
N=100			N=100			

43% arts, 44% Science and 40% Commerce students say that they have open spaces in their locality.

57% arts, 56% Science and 60% Commerce students say they do not have open space in their locality due to increase in number of buildings to cater to the housing needs of ever growing population.

Table No. 71

A small family is a happy family:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	97	97%	100	100%	100	100%
No	3	3%	—	—	—	—
N=100			N=100		N=100	

97% Arts students, 100% Science students and 100% Commerce students believe that a small family is a happy family whereas a mere 3% Arts students do not believe so.

Table No. 72

Rapid growth of population increase problems:

Responses	Arts		Frequency	Science		Frequency	Percentage
	Frequency	Percentage		Frequency	Percentage		
Yes	96	96%	100	100%	98	98%	
No	4	4%	—	—	2	2%	
N=100			N=100		N=100		

96% Arts students, 100% Science students and 98% Commerce students say that with the rapid growth of population many of our problems are increasing; whereas 4% Arts students and 2% Commerce students do not

feel so. It reveals that all most all students are aware of the population problems. The consequences of over population in their opinion are unemployment, water-shortage, food shortage, low standard of living, price rise, declining education standards, increasing crime, rise in poverty, illiteracy, pollution, malnutrition among the poor, and so on.

Table No. 73

Relationship between the population size of the country and the number of members in a family:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	78	78%	84	84%	78	78%
No	22	22%	16	16%	22	22%
N=100			N=100		N=100	

78% Arts, 84% Science and 78% Commerce students feel that there is a relationship between population of a country and the number of members of the family. It appears that students who answered "no" may not understand the question properly.

Table No. 74

Parents of a small family can pay proper attention, love and care to the children:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	100	100%	100	100%	100	100%
No	—	—	—	—	22	—
N=100			N=100		N=100	

Cent percent students from Art, Science and Commerce stream feel that parents of small family can pay proper attention, love and care to their children.

Small family is advantageous. It enables the parents to have high standard of living, leads to a happy, peaceful and comfortable life, which is evident from the response of the sampled students.

Table No. 75

Increase of population increases the sufferings and miseries of the people:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	96	96%	99	99%	99	99%
No	4	4%	1	1%	1	1%
	N=100		N=100		N=100	

96% Arts, 99% Science and 99% Commerce students understand that if population continues to increase the sufferings and miseries of people also increase, whereas a mere 4% arts, 1% Science, 1% Commerce students do not feel so.

It shows that all most all students are well aware about the miseries caused by over population.

Table No. 76

Rapid increase of population, affects law and order system in the country:

Variables	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Improves	3	3%	1	1%	3	3%
Detoriates	51	51%	55	55%	53	53%
Does not improve	46	46%	44	44%	44	44%
Does not detoriate	—	—	—	—	—	—
	N=100		N=100		N=100	

Only 3% arts, 1% Science and 3% Commerce students feel that increase of population, law and order system in the country improves whereas 51% and 46% arts, 55% and 44% Science and 53% and 44% Commerce students feel that with the increase of population, law and order situation detoriates, does not improve.

Table No. 77

With the increase of population in a densely populated country, the number of trees, the amount of oxygen in air, the bird and animal population:

Variables	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Increase	—	—	—	—	—	—
Does not increase	9	9%	4	4%	5	5%
Decrease rapidly	88	88%	92	92%	90	90%
Does not change	3	3%	4	4%	5	5%
	N=100		N=100		N=100	

Above table shows that all most all students feel that because of increase of population, the number of trees, the amount of oxygen in the air, the bird and animal population decrease rapidly.

It reveals that students have understood the consequences of over population on the planet earth.

Table No. 78

The increase of population, the per capita availability of land:

Variables	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Increase	—	—	—	—	—	—
Does not increase	13	13%	12	12%	11	11%
Decrease rapidly	80	80%	83	83%	83	83%
Does not change	7	7%	5	5%	6	6%
	N=100		N=100		N=100	

This table shows that 80% arts students 83% Science and 83% Commerce students feel that because of population increase the per capita availability of land decreases rapidly. This finding also proves that students from different streams have idea about the result of over-population.

Table No. 79

Idea about family planning:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	100	100%	100	100%	100	100%
No	—	—	—	—	—	—
	N=100		N=100		N=100	

Cent percent students Arts, Science and Commerce have idea about family planning.

Table No. 80

Necessity of family planning to control population:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	100	100%	100	100%	100	100%
No	—	—	—	—	—	—
	N=100		N=100		N=100	

Cent percent students feel that family planning is necessary to control population.

Table No. 81

Idea about population education:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	84	84%	78	78%	73	73%
No	16	16%	22	22%	27	27%
	N=100		N=100		N=100	

84% Arts students, 78% Science students and 73% Commerce students have idea about population education whereas 16% arts, 22% Science and 27% Commerce students do not have any idea about population education, but they are very much willing to learn more about population education.

FIG.27 IDEA ABOUT POPULATION EDUCATION .

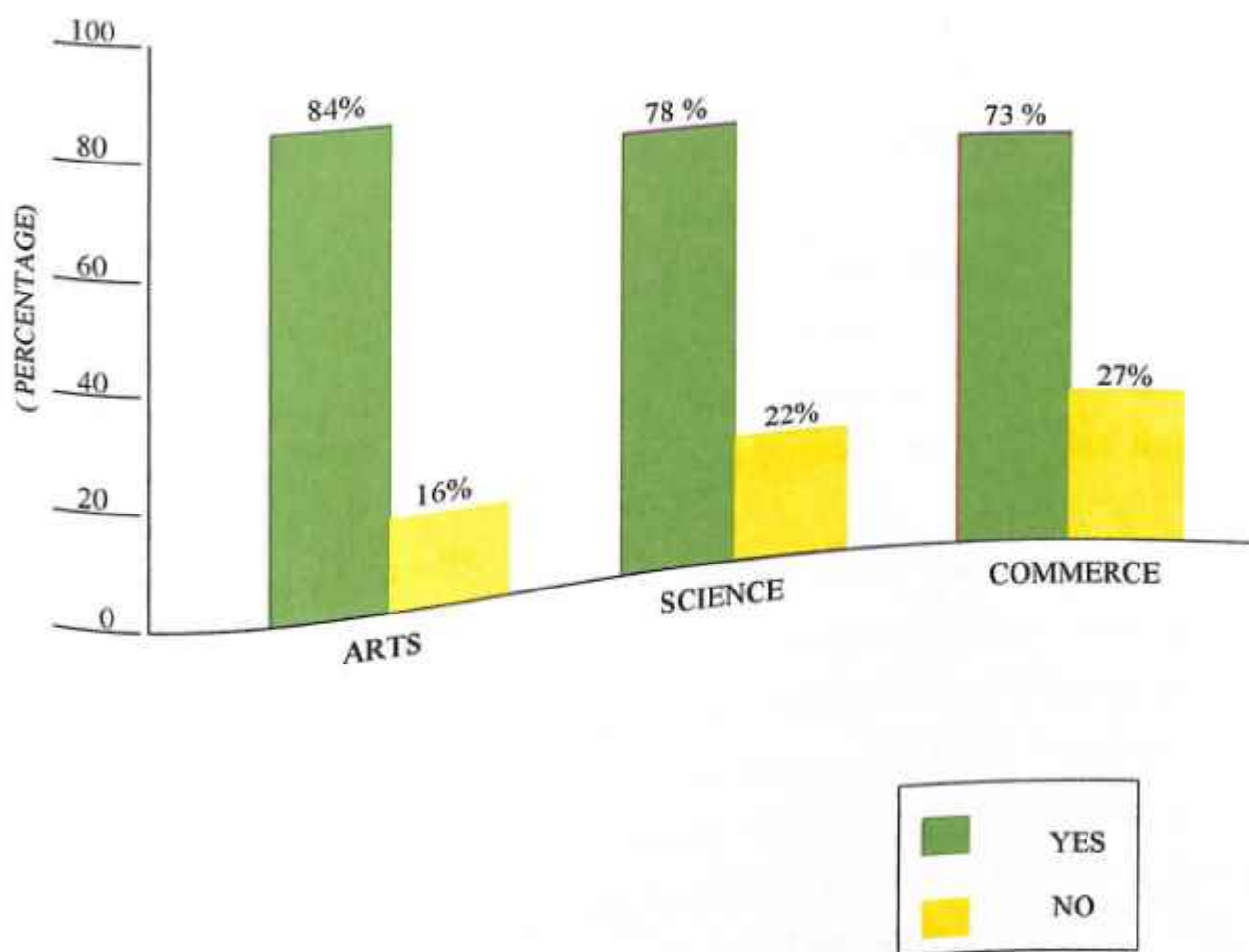


Table No. 82

Population education in degree curriculum:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	69	69%	30	30%	30	30%
No	31	31%	70	70%	70	70%
N=100			N=100		N=100	

Above table shows that 69% arts students, 30% Science students and 30% Commerce students have population education in their curriculum.

In the degree curriculum of Gauhati university, population education is included in the subject education as a half paper in the part III (General and major course). In the part II, there is a compulsory paper "Environment on population education is included in the environment education paper. Therefore the students have heard about population education, but they could not define it correctly.

The environmental education is compulsory for 2nd year Arts, Science and Commerce students but students are not motivated to the class because, the teachers are not properly oriented to teach the subject. The teachers are also not well prepared to teach environment-population education. Apparently teachers have had no opportunity to learn about these subjects in their own schooling and no chance to learn about the subject population in workshop or seminars outside of their own formal education.

Therefore, the teachers should be given proper in service training to impart population education effectively.

FIG.28 POPULATION EDUCATION IN DEGREE CURRICULUM.

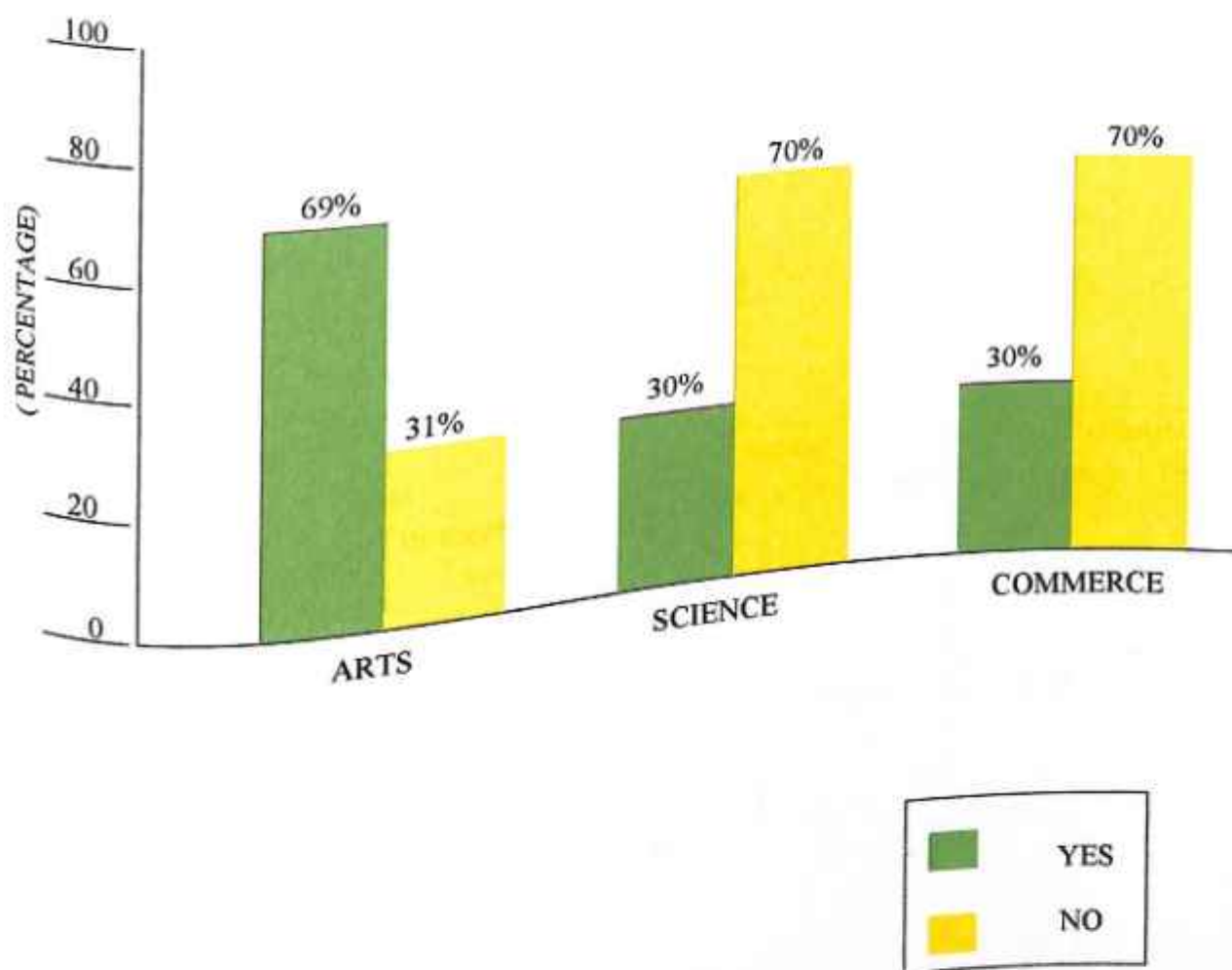


Table No. 83

Inclusion of population education in degree curriculum:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	96	96%	98	98%	97	97%
No	4	4%	2	2%	3	3%
	N=100		N=100		N=100	

This table shows that all most all students from Arts, Science and Commerce stream feel that population education should be included in the college curriculum.

They also feel that college students are mature enough to understand the population problem.

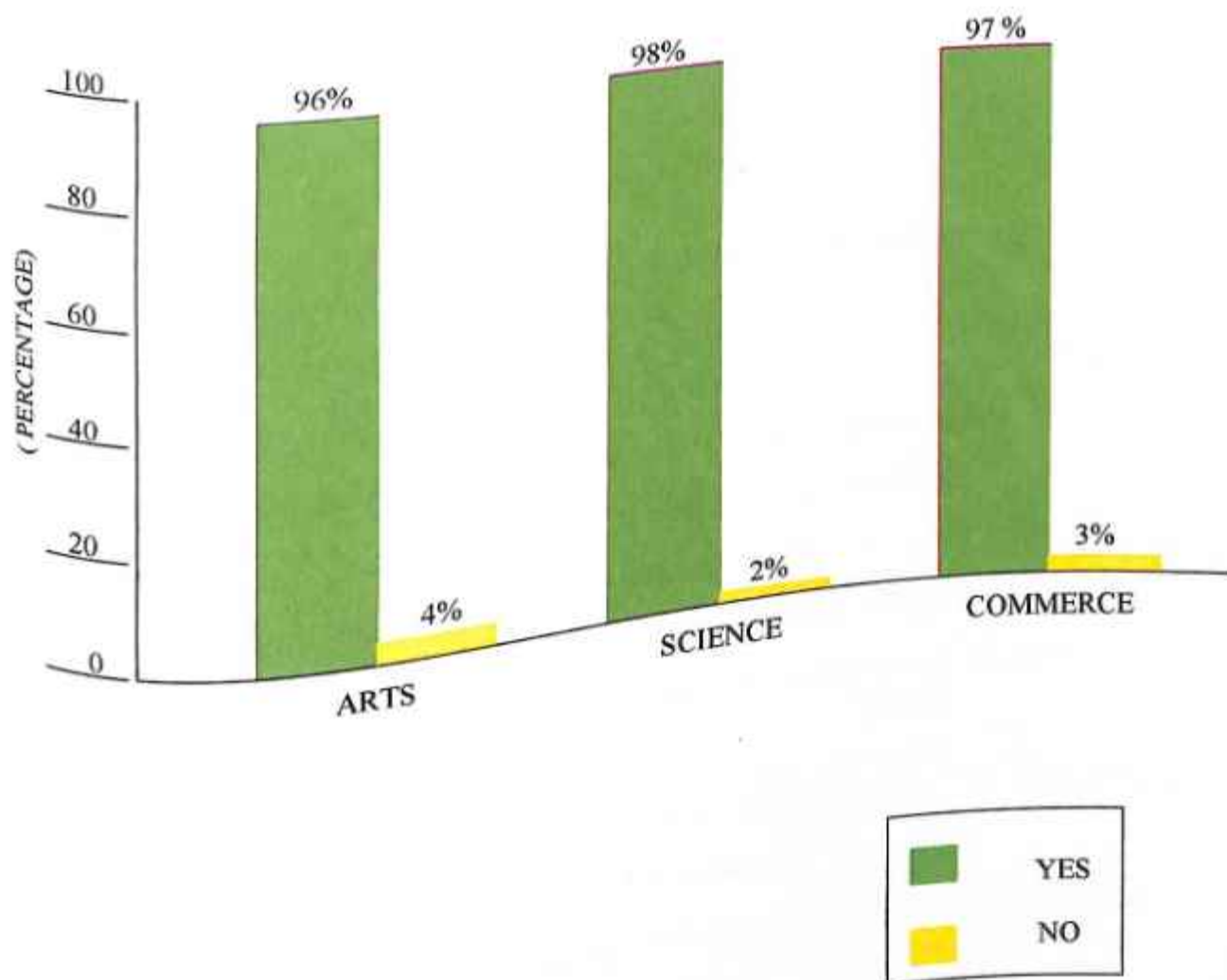
Table No. 84

Population education is necessary for:

Responses	Arts		Science		Commerce	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Boys only	—	—	—	—	—	—
Girls only	—	—	—	—	—	—
Both	100	100%	100	100%	100	100%
No idea.	—	—	—	—	—	—
	N=100		N=100		N=100	

Cent percent Arts, Science and Commerce students feel that population education is necessary for both boys and girls. This shows the increasing awareness about population education.

FIG. 29 INCLUSION OF POPULATION EDUCATION IN DEGREE CURRICULUM.



From the above findings it can be said that the student's knowledge and understanding of population situation and population education and awareness level of students about the ill effects of population growth and their attitude towards the inclusion of population education in the curriculum is almost same for the students of male and female, students from urban, semi-urban, and rural areas, and students from Arts, Science and Commerce stream. Hence the assumption formulated for the investigation is not retained.

4.2.2

SECTION II

Analysis and interpretation of knowledge, understanding and attitude of Teachers:

This part analyses the data obtained from the teachers of degree colleges. The total number of teachers covered in the study is 80. All of them are employed in the degree colleges at Greater Guwahati.

Based on the objectives mentioned earlier the study, the data is analyzed and presented in the following sections along with tables.

1. Teachers opinion towards family planning in terms of frequency and percentage.
2. Teachers awareness, knowledge and understanding of population education in terms of frequency and percentage.
3. Attitudes of teachers regarding the implementation of population education in terms of frequency and percentage.

Table No. 85

Opinion towards family planning:

Opinion	Frequency	Percentage
Yes	76	95%
No.	4	5%
N= 80		100%

It is found that 95% favour family planning as a way of life whereas 5% are not in favour of family planning

Table No. 86

Awareness about Population:

Population of Greater Guwahati according to 2001 census.	Frequency	Percentage
25,00,0070	10	12.5%
12,00,050	45	56.25%
8,08,021	15	18.75%
2,08,021	10	12.5%
N= 80		

The population of greater Guwahati according to 2001 census is 8,08,021 but only 18.75% teachers are aware of it. Majority of them (56.25%) express it as more than 12 lakh.

FIG. 31 AWARENESS ABOUT POPULATION.

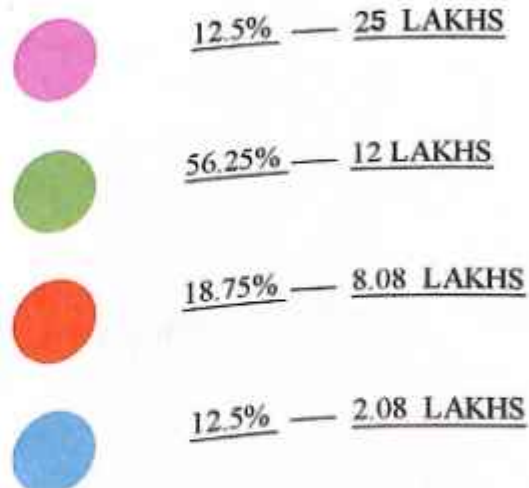
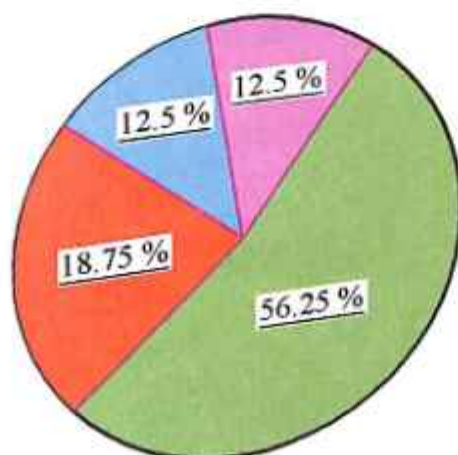


Table No. 87

Populous country of the world:

India is the second most populous country of the world	Frequency	Percentage
Yes	60	75%
No	20	25%

N= 80

Table No. 87 reveals that 75% of teachers are aware of that India is the second most populous country of the world but 25% of teachers are not aware of that.

Table No. 88

India's population situation:

(a)

India is most densely populated than China.	Frequency	Percentage
Yes	57	71.25%
No.	23	28.75%

N= 80

Teachers are not equally aware about the population situation of the Country.

FIG.32 INDIA IS THE SECOND MOST POPULOUS
COUNTRY IN THE WORLD.

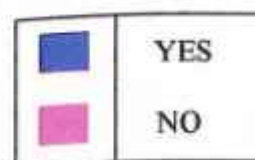
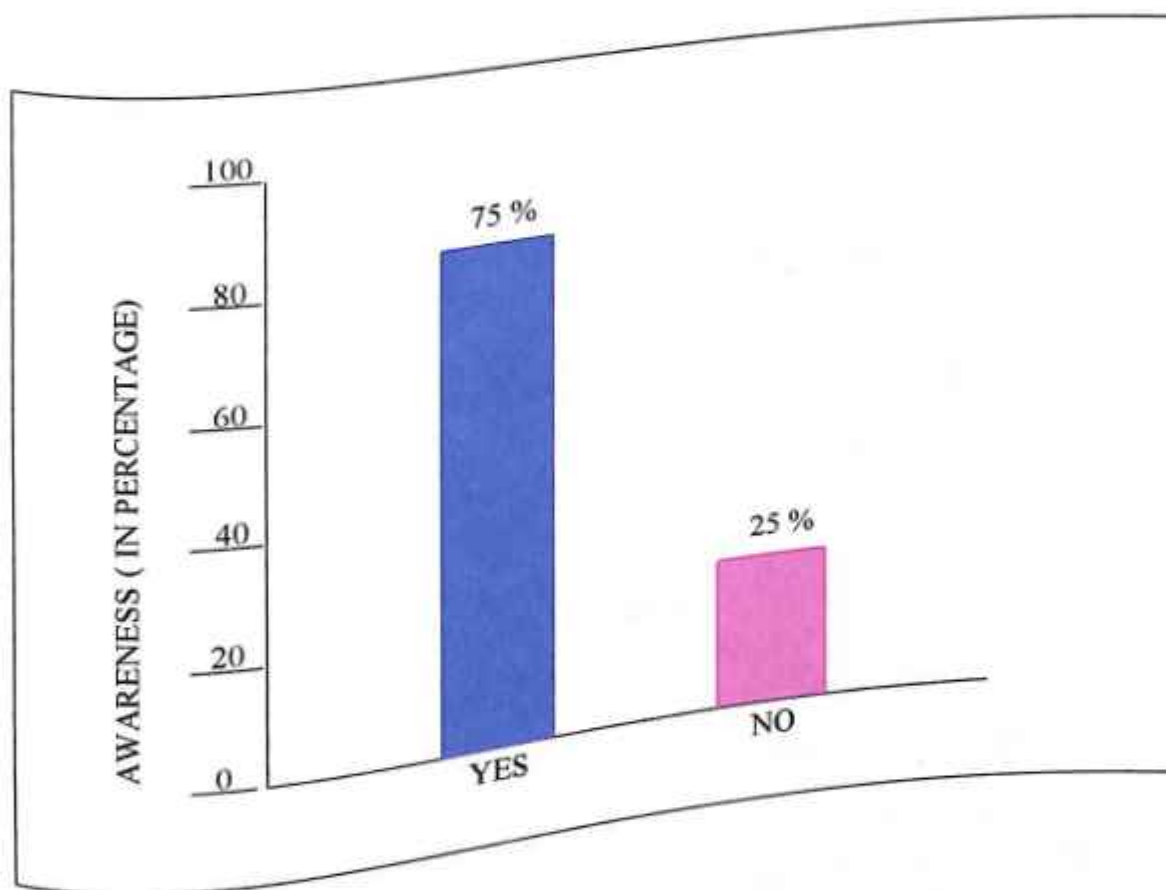


Table No. 89

(b)

Which year India will overtake China and most populous country of the world	Frequency	percentage
2015	10	12.5%
2020	35	43.75%
2031	15	18.75%
2040	20	25%
N= 80		

It is found that most of the teachers are not sure which year India will overtake China and become the most populous country of the world. Only 18.75% of the teachers correctly say that 2031 is the projected year on which India will overtake China and become the most populous country in the world.

Table No. 90

(c)

India's one year population is equivalent to one of the following country.	Frequency	Percentage
New-Zealand	24	30
Bangladesh	26	32.5
Pakistan	7	8.75
Australia.	23	28.75
N= 80		

India's one year population is equivalent to New-Zealand's total population. 30% teachers feel correctly that it is New-Zealand whereas 70% teachers are not well aware about it.

Table No. -91

Problem created by over population:

Problem arising from over population are affecting almost every aspect of our life.	Frequency	Percentage
Yes	79	98.75%
No.	1	1.25%
N= 80		

98.75% of teachers believe that over population is affecting almost every aspect of our life. Teachers are sufficiently aware of the population problem of the country as a whole.

Table No -92

Belief of teachers on population control:

Population control is one of the most pressing problems of the country and the students. Teacher's choice of priority is:

	Frequency	Percentage
Population control	74	92.5%
First priority	4	5%
Second priority	2	2.5%
Third priority		

N= 80

An overwhelming majority of teachers (92.5%) feel that it should be the first priority of the Government to control population.

Table No - 93.

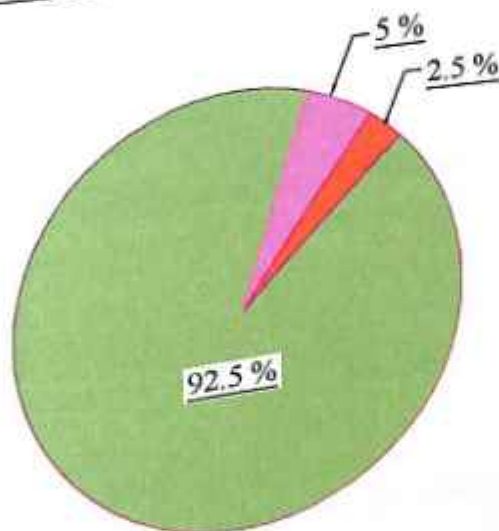
Population explosion can be stopped by:

Variables	Frequency	Percentage
Bringing awareness about the problems regarding population explosion.	2	2.5%
Creating popular opinion about family planning and its fruitfulness.	2	2.5%
Both of the above.	76	95%

N= 80

The teachers differ in their views as to how population explosion can be stopped. 2.5% teachers feel that population explosion can be stopped by bringing awareness about the problems regarding population explosion. 2.5 percent feel that population explosion can be stopped by creating popular opinion about family planning and its fruitfulness. But 95% teachers feel

FIG. 33 CHOICE OF PRIORITY OF TEACHERS TO CONTROL POPULATION.



that population explosion can be stopped by adopting both the means i.e. bringing awareness about the problems regarding population explosion and creating popular opinion about family planning and its fruitfulness.

Therefore, it can be stated that the level in knowledge and understanding of population education varies from teacher to teacher. Further it can be said that teachers are quite clear about the ways to control population explosion.

Table No -94

Concept of population education:

	Frequency	Percentage
Population education sex education	10	12.5%
Yes	70	87.5%
No.	N= 80	

12.5% of the teacher's concept on population education is not clear. They feel population education as sex education. Where as 87.5% of the teachers have idea about it. As such, it is widely feel that integrating human sexuality into population education will only jeopardize the acceptance of the total population education programme.

FIG. 34 POPULATION EDUCATION IS SEX EDUCATION.

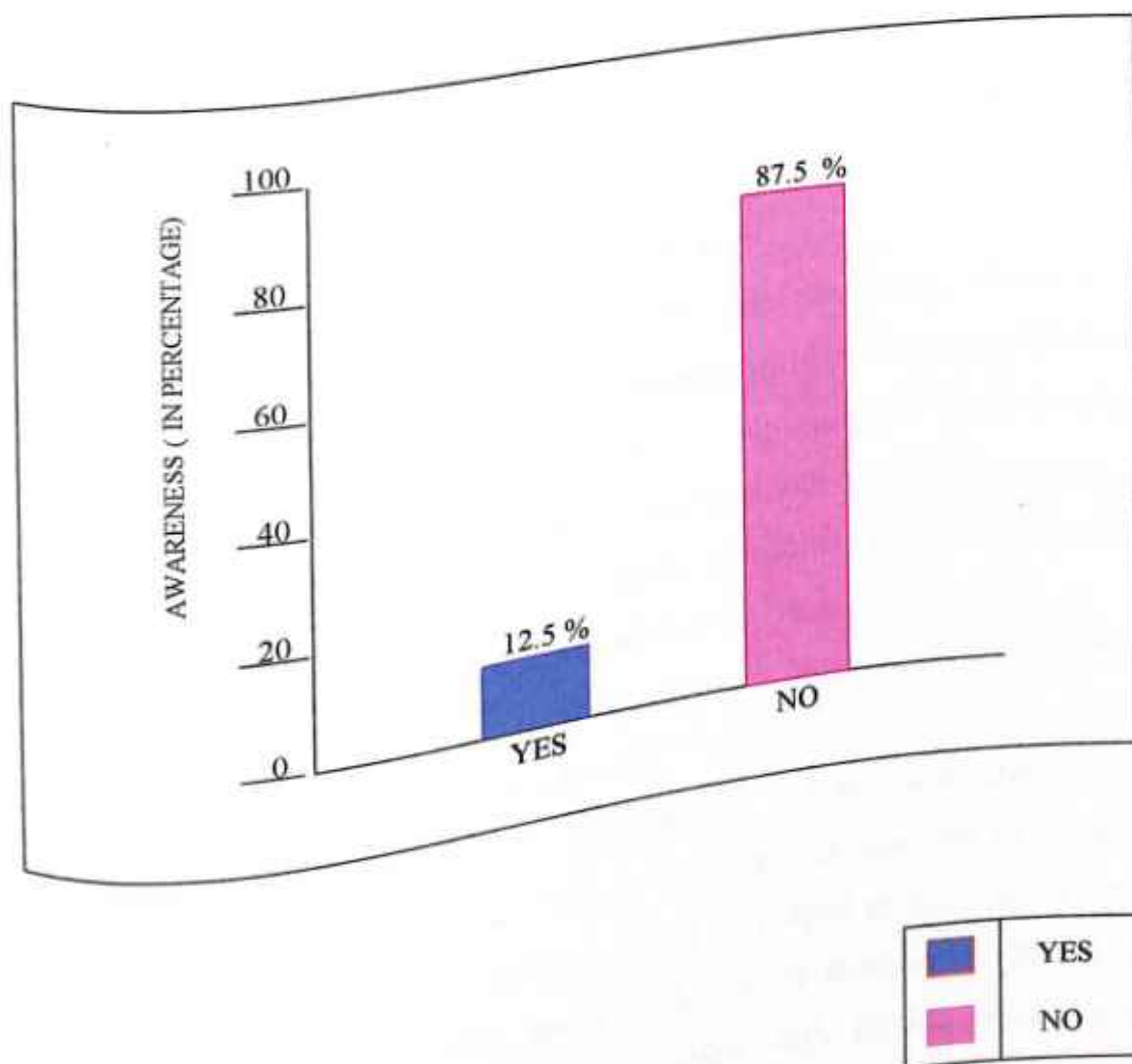


Table No -95

Need of population education:

Why population education	Frequency	Percentage
—For better understanding of population growth.	10	12.5%
— To help minimize the population problem.	8	10%
— To check population explosion.	6	7.5%
— All of above.	56	70%
Any other.	--	--

N=80

12.5 percent of the teachers felt that population education is necessary for better understanding of population growth. 10 percent teachers feel that population education is necessary to help minimize the population problem. 7.5 percent teachers feel that population education is necessary to check population explosion whereas 70 percent teachers feel that population education is necessary for all the above mentioned reasons.

Education is regarded as the most potent agency, medium as well as tool of social change and modernization.

Population education is a moulder of attitude and creation of predispositions to a planned life. Students develop a certain type of thinking right from the college stage and they should be helped to think in the right direction. Education can bring about a change in attitudes & behaviour through transmission of relevant information with guided socialization process.

Table No -96

Population education necessary for age group:

Age group	Frequency	Percentage
Children	50	62.5%
Adolescents	25	31.25%
Adult	5	6.25%
All of the above	N=80	

62.5% of teachers feel that population education is necessary for the adolescents. 31.25 percent feel that population education is necessary for the adults only. 6.25% percent think it is necessary for all – children, adolescents and adults.

Table No -97

Views of teachers regarding population education:

Necessity of inclusion of population Education in the college curriculum	Frequency	Percentage
Yes	67	83.75%
No.	13	16.25%
	N=80	

83.75 percent of the teachers feel that population education should be included in the degree curriculum as a compulsory subject 16.25 percent of the teachers feel that population education should not be included in the

FIG. 35 NECESSITY OF POPULATION EDUCATION FOR VARIOUS AGE GROUPS.

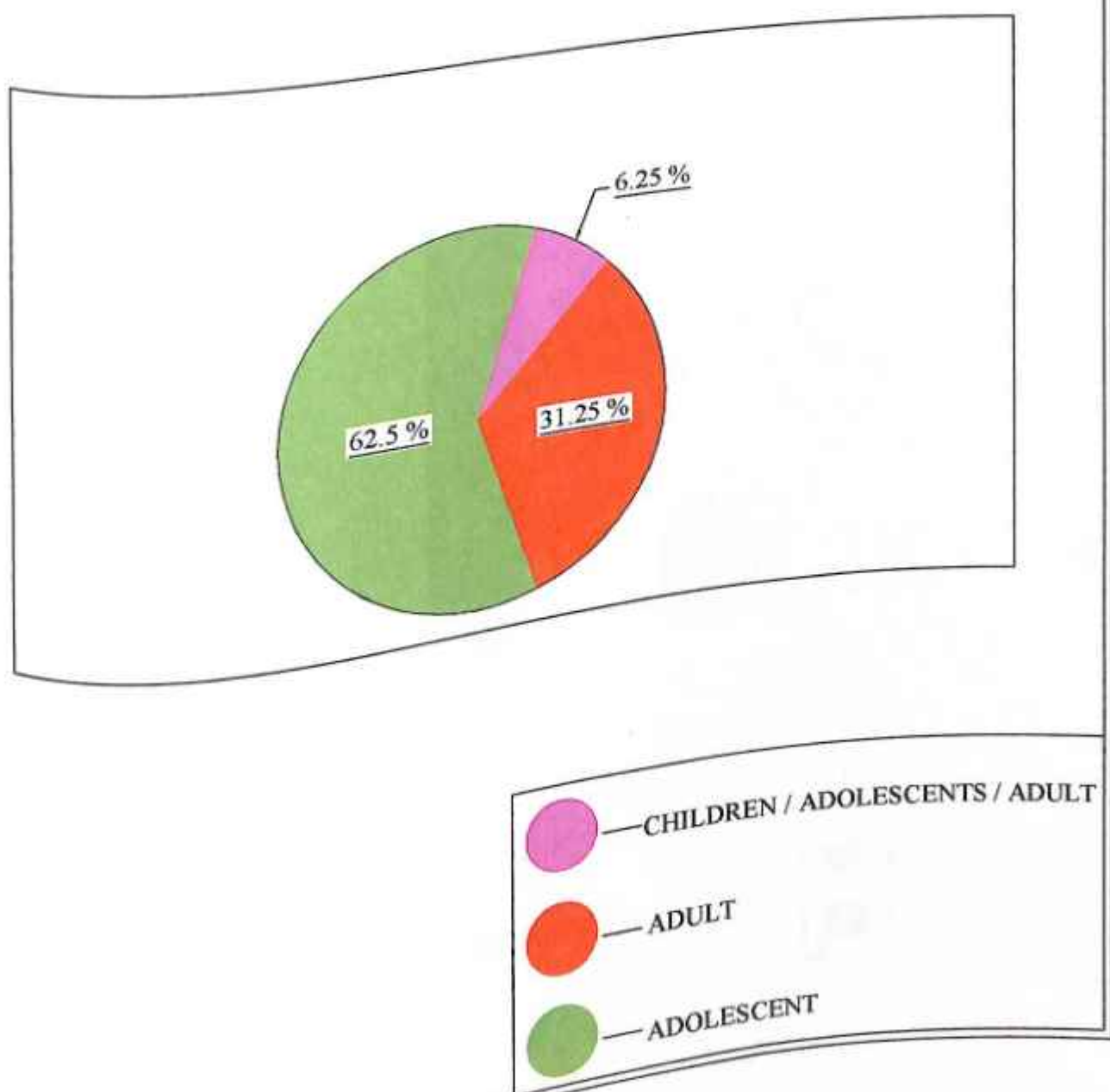
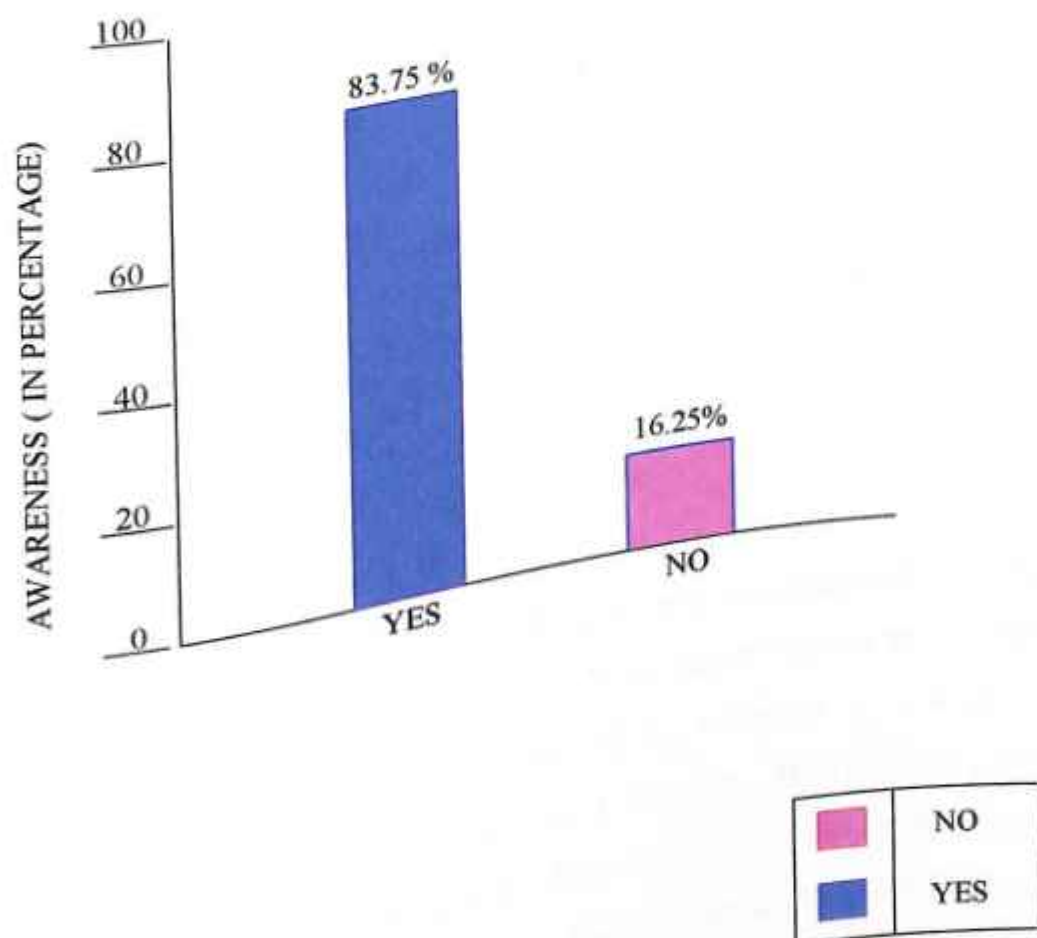


FIG. 36 NECESSITY OF INCLUSION OF POPULATION EDUCATION
IN DEGREE CURRICULUM.



degree curriculum. The teachers who answered "no" may not understand the meaning of population education and its long term implication. This indicates the need to orient teachers in population education, so that they may impart population education effectively.

Population education should begin at college level when pupils are at the stage of maturity; teachers can easily "catch" them young and matured. Since the young generation accepts & understand new ideas much more quickly.

Based on research conducted by S.L. Nagda, 1975 and Bharati Panchami in 1984 it is observed that most of the students and teachers favoured the integration of population education with collegiate curriculum.

Table No -98

Inclusion of population education in the curriculum:

Variables	Frequency	Percentage
As a separate subject	29	36.25%
Integrated with other subject.	51	63.75%
N=80		

The majority of teachers (63.75) feel that population education should be included as an integral part of the subjects whereas 36.25% of the teachers feel that population education should be included as a separate subject. Probably because they do not have a clear cut idea regarding the meaning of population education nor do they know how they can impart population education. They need to be provided with orientation with regard to the implementation of population education is evident.

Based on research conducted in other countries & India among parents, teachers and students, there is an apparent need for integration of population education with the existing subjects.

The most popular mode of introduction of population education is its integration with other subjects. This would develop an interest among teachers for social affairs and a strong sense of responsibility in regard to national development.

It is only China and Thailand who introduced population education as a single subject. To introduce population education as a single subject needs long time planning and big amount of finance.

The following views have been obtained from the teachers from some open-ended questions.

- 1) An overwhelming majority of teachers believe that population growth in India is a serious detriment to the welfare of the people. They feel that population growth hamper in development of the country. It affects the natural resources (over use of natural resources) and environment and deteriorates the standard of living of the people. It also affects the food, sanitation, health and education sector of the country.
- 2) All most all of the teachers feel that solving India's population problem is not the exclusive concern of the Government. People's awareness is also very much necessary to solve this problem.
- 3) Almost all the teachers feel that education can motivate people for a planned and responsible parenthood.

4) An overwhelming majority of teachers think that it is necessary to impart population education in degree stage.

The teacher's view shows that teacher's level of knowledge and understanding about population situation & concept, scope and importance of population education as well as the attitude towards inclusion of population education in the curriculum varies. Hence, the assumption formulated for the investigation is retained.

4.2.3

SECTION III

Analysis and interpretation of knowledge, understanding and attitude of parents:

This part analyses the data obtained from the parent's of degree students of greater Guwahati. The total No of parents covered in the study was 80.

Table No. -99

Location of the house of the parents in terms of frequency and percentage:

Variables	Frequency	Percentage.
Rural	15	18.75
Urban	60	75.00
Semi-Urban	5	6.25
N=80		

18.75 percent parents live in rural area, 75 percent parents live in urban area whereas 6.25 percent parents live in semi-urban area.

Table No. -100

Educational qualification of the parents in terms of percentage:

Educational status	Frequencies		percentage	percentage
	Father	Mother	Father	Mother
No Education	1	2	1.25%	2.5%
Under Matric	10	13	12.5%	16.2%
Matric	6	35	7.5%	43.7%
Higher Secondary	12	17	15.0%	21.2%
B. A.	45	13	56.25%	16.2%
M. A.	6	3	7.5	—
	N=80	N=80		

As placed in the table 100 educational qualification of parents are somewhat similar to each other.

However, 56.2 percent fathers and 16.2 percent mothers are graduates. Again 7.5 percent fathers are post graduate there is no post graduate mother.

Location and educational qualification have no effect on knowledge and understanding of parents on population matters. Both educated and illiterate parents are equally aware about the problems created by population explosion as well as the importance and need of population education. It may be due to parent's personal experience of life as well as the influence of mass-media.

Based on research conducted in Florida state university and another one in India, it is revealed that village students and parents gained knowledge on population matters from mass-media.

Table No. -101

Awareness about population:

Children are enjoying the same environment what their parents enjoyed in their childhood.

Responses	Frequency	Percentage.
Yes	20	25%
No	60	75%
N=80		

25% parents feel their children are enjoying the same environment as they enjoyed in their childhood where as 75% parents are not supporting this view. The majority of parents are well aware of the population problems. They feel the consequences of over population which brings this change.

Table No. -102

Educational Institutes are overcrowded even after the increase in the number of institutions all over the country:

Responses	Frequency	Percentage.
Yes	77	96.25%
No	3	3.75%
N=80		

96.25% parents feel that all educational institutions are overcrowded even after the increase of number of institutions all over the country. This indicates that parents are quite aware about the explosive population.

Table No. -103

It is expected from the parents that they should not educate, not feed and not take care of their children.

Responses	Frequency	Percentage.
Yes	4	5%
No	76	95%
N=80		

From this table it is seen that all most all parents expect to educate, to feed and to take care of their children which reflects their sense of parental responsibilities.

Table No. -104

Children in big families with limited income will suffer for want of food & clothing:

Responses	Frequency	Percentage.
Yes	73	91.25%
No	7	8.75%
N=80		

91.25 percent parents agree with the fact that children in big families with limited income will suffer for want of food & clothing whereas only 8.75 percent parents do not agree.

From the research conducted in India and elsewhere among parents, teachers and students, it is found that there is an apparent need for small family for children's education & well being.

Table No. -105

With the increase in population, standard of living deteriorates:

Variable	Frequency	Percentage.
Improve	5	6.25%
Does not improve	45	56.25%
Deteriorate	29	36.25%
Does not deteriorate	1	1.25%
N=80		

Table no. 105 reveals that, majority of the parent's belief that increase in population standard of living deteriorates, and does not improve.

Based on research done by J. R. Maheswari and Bharati Panchani it is observed that small family enables the people to have high standard of living and presently the living standard of people in India is not satisfactory.

Table No. -106

Education motivates people for responsible parenthood:

Responses	Frequency	Percentage.
Yes	78	97.5%
No	2	2.5%
N=80		

97.5% percents parents feel that education can motivate people for responsible parenthood.

One study conducted by S.L. Nagda at Sri Venkateshwara university, about the opinion of teachers and parents towards population education the findings revealed that most of the teachers and parents agreed that the population education is necessary to assist youth to initiate responsible parenthood.

FIG.38 EDUCATION MOTIVATE STUDENTS FOR RESPONSIBLE PARENTHOOD.

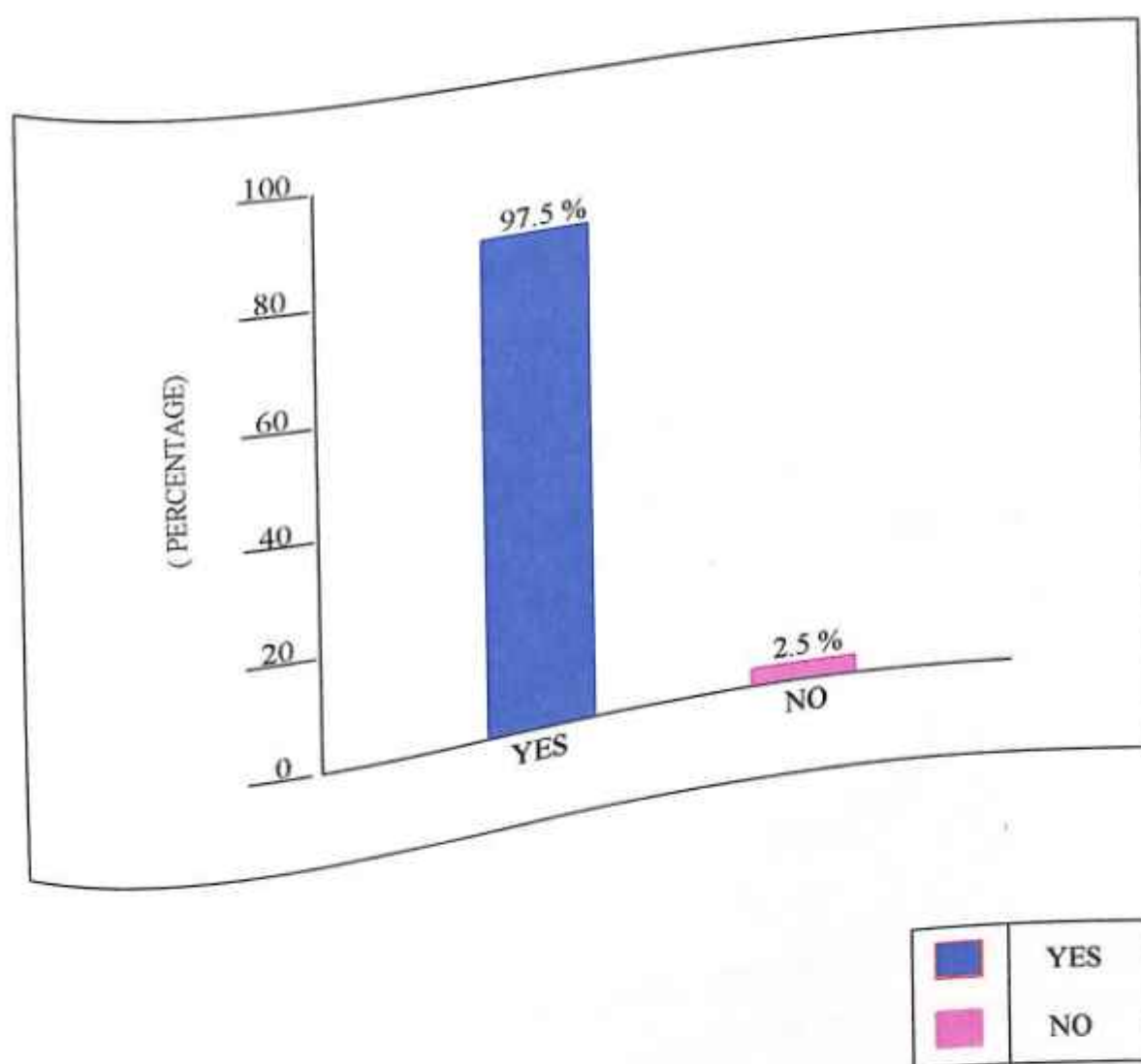


Table No. -107

Both family planning and population education are necessary to control population explosion:

Responses	Frequency	Percentage.
Yes	80	100%
No	--	--

N=80

The table 107 indicate that all parents are aware about population explosion. They feel both family planning and population education are necessary to control population explosion.

Table No. -108

Views of parents regarding population education:

Population education is sex education	Frequency	Percentage.
Yes	15	18.75%
No	65	81.25%

N=80

18.75 percent of the parents confuse population education with sex education whereas 81.25 percent parents know that population education is not sex education and the scope is wider.

Table No. -107

Both family planning and population education are necessary to control population explosion:

Responses	Frequency	Percentage.
Yes	80	100%
No	--	--
N=80		

The table 107 indicate that all parents are aware about population explosion. They feel both family planning and population education are necessary to control population explosion.

Table No. -108

Views of parents regarding population education:

Population education is sex education	Frequency	Percentage.
Yes	15	18.75%
No	65	81.25%
N=80		

18.75 percent of the parents confuse population education with sex education whereas 81.25 percent parents know that population education is not sex education and the scope is wider.

Table No. -109

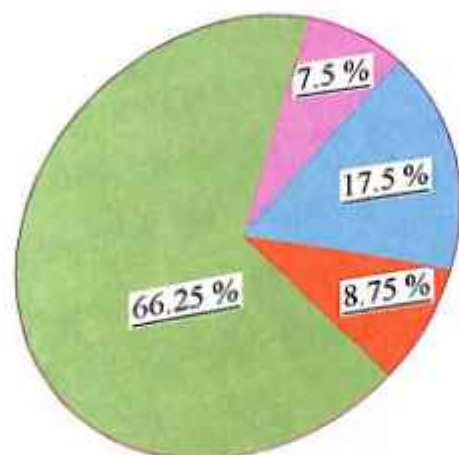
Need of population education for students:

Students need population education	Frequency	Percentage.
— For better understanding of population growth.	6	7.50%
— To help minimize the population problem.	14	17.50%
— To check population explosion.	7	8.75%
— All of the above	53	66.25%
— None of the above	—	—

N=80

Above table indicate that all parents are aware about the need of population education. 7.5% parents need population education for better understanding of population growth. 8.75% parents need to check population explosion, 17.5% need to minimize population problem and 66.25% need population education for their children for all the reasons referred in the table. The percentages indicate that all parents are aware about the need of population education.

FIG. 40 NEED OF POPULATION EDUCATION FOR STUDENTS.







-  — FOR BETTER UNDERSTANDING OF POPULATION GROWTH
-  — TO HELP MINIMISE THE POPULATION PROBLEM
-  — TO CHECK POPULATION EXPLOSION
-  — ALL OF THE ABOVE

Table No. -110

Necessity of Inclusion of population education in college curriculum:

Responses	Frequency	Percentage.
Yes	80	100%
No	—	—

N=80

Cent percent parents feel the importance of population education. Hence they say "Yes" to impart population education in college.

They feel that students must know problems created by population. Some of the parents also feel that in India most of the female population goes for marriage after graduation. Hence this stage is the perfect stage to give knowledge about population growth and problem.

Table No. -111

Knowledge of population education is necessary:

Variables	Frequency	Percentage.
Boys only	—	—
Girls only	—	—
Both	80	100%
No idea.	—	—

N=80

100% parents feel that knowledge of population education is necessary for both boys and girls. To control population explosion both boys and girls must be aware about its ill effects. This indicates that parents'

understanding about population education is quite clear. To control population explosion, both boys and girls must be equally aware about its ill effects because in future they will have to take joint decisions about their family life.

Table No. -112

The knowledge about population is essential for female before marriage:

Variables	Frequency	Percentage.
Yes	72	90%
No	5	6.25%
No idea	3	3.75%
N=80		

90 percent of the parents feel that knowledge of population is essential for female before marriage. 6.25 percent do not think it is essential and 3.75 percents has no idea about it.

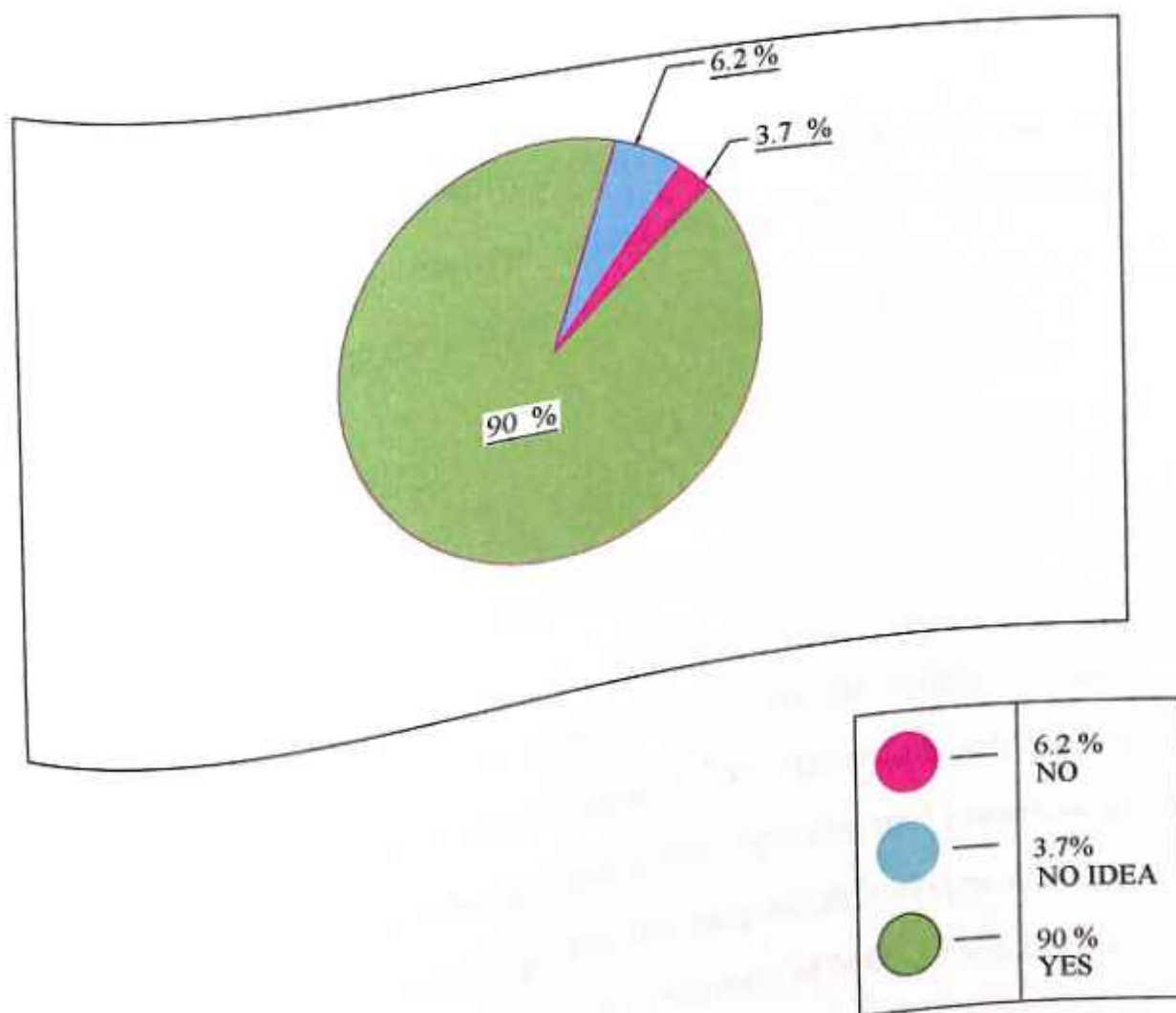
Table No. -113

Idea about population education:

	Frequency	Percentage.
Population education is	80	100%
-A good programme & very much needed.	--	--
-Not needed	--	--
-In bad taste	--	--
-No idea	N=80	

100 percent parents feel that population education is a good programme and very much needed.

FIG. 41 KNOWLEDGE ABOUT POPULATION IS ESSENTIAL FOR
FEMALE BEFORE MARRIAGE.



Some other views are also revealed through the open-ended questions.

1) Knowledge of population education help people to adopt family planning as a way of life.

2) Most of the parents feel that inclusion of population education in the degree curriculum creates awareness about population explosion and its ill effects among the future citizens of the country and create a mind to control it.

The attitude of parents towards the inclusion of population education in degree curriculum is favourable which has been reflected in the analysis of data.

Therefore the assumption that, the level in knowledge and understanding about the concept, scope and importance of population education, varies among the parents.

4.2.4

SECTION-IV

Attitude of other Community members:

The investigator has also attempted to study the opinion of some community members like members of some N.G.O.s, Doctors, health workers and municipal members towards population explosion and imparting of population education in the college. For this purpose an interview schedule with some questions was prepared for the members of N.G.O.s and Doctors and they were interviewed.

An analysis of the interview reveals that cent percent of the community members like N.G.O.s, Doctors, Health workers etc. are aware of rapid population growth and population education. They feel that for the development of the Nation and to save the World, population control is essential.

Analysis of the data also makes a significant revelation of necessity of people's awareness about population growth which curtails economic capacity of people and the country and which is a danger for healthy & sound life.

The stake holders are of the opinion that due to explosive population, standard of living and education is deteriorating very fast; social values are lost, crimes are ever increasing and price rise is a constant worrying factor. The stake holders are also of the view that when the students will become aware of the problems being faced by the country, then the sense of responsibility towards the nation will develop in them.

They feel that population education at college level must enlighten the students about the problems of population explosion in our country, so that they become conscious about their role in future.

Over all, it appears that the responses of the members of N.G.O.s, Doctors, health workers and municipal members show an encouraging & positive attitude towards the introduction of population education in college curriculum .

CHAPTER-V
FINDINGS, DISCUSSION,
IMPLEMENTATION, SUGGESTION, FOR
FURTHER RESEARCH AND CONCLUSION

CHAPTER-V
FINDINGS, DISCUSSION,
IMPLEMENTATION, SUGGESTION, FOR
FURTHER RESEARCH AND CONCLUSION

CHAPTER V

FINDINGS, DISCUSSION, IMPLEMENTATION, SUGGESTION FOR FURTHER RESEARCH AND CONCLUSION

FINDINGS:

5.1. The major findings of the study are summarized below in relation to the two major components of the research.

1. Population education awareness of college students.
2. Stake holder's perception towards inclusion of population education in the degree curriculum.

5.1.1. Student's view.

1. In the study, it is found that out of 300 students' 172 students live in urban area, 89 students live in semi urban area and 39 students are from rural area.

In the sample, 50% of students are male, and 50% students are female.

The age groups of students are mainly 19 and 20 plus while the age group of 17 and 18 are less.

Out of 300 students 130 students are from T.D.C. part I and 88 and 82 students are from T.D.C. part II and Part III respectively.

2. It is observed from the study that an overwhelming majority (i.e. 89 percent) of the students feel that population explosion affect our day to day life. According to them, lots of problem has been created by the growing population, which are affecting our day to day life. The various problems identified by the student's are - poverty, illiteracy, unemployment problem, overcrowding, pollution, water shortage, L.P.G shortage, food shortage, resulting price hike of essential food items, vegetables etc. scarcity of place to live in, traffic jams, increase in slum areas, Global warming etc. According to them, the population explosion has also deteriorated the standard of living and standard of education.

3. According to this study, it is observed that all most all students believed that small family is happy family and number of members in a family has direct influence on the population size of the country. They are also aware that parents of a small family can pay proper attention, love and care to their children.

4. It is observed from the study that all most all the students (98%) feel that with the rapid growth of population many of our problems such as poverty, pollution, poor sanitation, Insurgency etc. are increasing day by day. The gap between rich and poor has become wide; unsocial activities have increased by several folds. Education has become more expensive.

They also feel that because of population explosion natural resources like tree, bird and animal population are decreasing. Law and order situation is deteriorating and suffering and miseries of the populace are ever increasing. Besides, unemployment and per capita availability of land has also been directly affected by the rise in population.

5. The study has revealed that 78.3% of the students have a fair idea about population education; they are not very clear about it, whereas 21.7% students do not have any idea at all about population education. Most of the students want to know about population education including detailed information about the problems of over population, their effects and consequences, present situation of population in our country and what they can do to control population.

6. The study reveals that, out of 300 students 129 students say that they have population education in their curriculum, whereas 171 students say that they do not have population education in their curriculum. But 97% students feel that population education should be included in the curriculum, to make the students aware of the hazards of population explosion on the quality of life, to appreciate the advantages of a small family, for better understanding of population growth, to check population explosion etc. Some students feel that if population education is taught to the students, family planning programme will be successful.

7. This study also reveals that cent percent students feel that population education is necessary for both boys and girls. According to the students, population education is a very good programme and very much needed for a developing country like India.

8. All most all students feel that India's population is increasing only because of the lack of education and lack of awareness among the masses. Because of lack of awareness, people are very much conservative in their

mentality; they do not like to adopt the family planning as a way of life. Still there is a craving for male child in a family.

5.1.2 Teacher's view.

1. In this study it is found that out of 80 teachers, 76 teachers are in favour of family planning as a way of life whereas 4 teachers are not in favour of family planning.

According to them to make family planning programme successful awareness among general public is very important. In India, family planning programme is not successful only because of illiteracy.

2. According to this study it is found that 75% of teachers are aware that India is the second most populous country of the world, whereas 25% of the teachers are not at all aware about it.

Overwhelming majorities (98.75%) of teachers believe that over population is affecting almost every aspect of our life and they also feel that it should be the first priority of the country to control population.

According to them population explosion can be stopped by creating popular opinion about family planning and its fruitfulness and bringing awareness about the problems regarding population explosion.

3. According to the teachers, education is the only means by which population explosion can be controlled. Education can motivate people for planned and responsible parenthood by illustrating the evils of irresponsible parenthood and make them aware about the benefits of smaller families.

4. Another startling revelation of this study is that 85% teachers have no idea about population education. 5% teachers have little knowledge about population education.

Whereas, only 10% teachers have idea about population education; they feel that population education is a modern approach towards tackling a burning problem and it is a means of spreading idea of having a small family and its advantages.

5. This study reveals that 62.5% teachers feel that population education is necessary for the adolescents, 31.25 percent feel that population education is necessary for the adults. Only 6.25% percent think it is necessary for all children, adolescents and adults.

Population education is necessary for adolescent because they are mature enough to understand the ill effects of over-population at the same time younger generation accepts new ideas much more quickly.

6. An overwhelming majority (83.75%) of the teachers feel the need of inclusion of population education in the college curriculum. They feel that today's youth is the future of the Nation, who will determine the Nation's progress. Some teachers feel that college students can easily understand the negative impact of population growth. They are the future parents and future depends on them.

Maximum no. of girls gets married after their graduation. Hence it is necessary to impart population education at the college stage.

7. This study also reveals that majority of teachers (63.75 percent) feel that population education should be included as an integral part of the subjects

whereas 36.25% of the teachers feel that population education should be included as a separate subject.

5.1.3 Parent's view.

1. According to this study it is found that 75 percent parents live in urban area whereas 18.75 percent and 6.25 percent parents live in rural and semi urban area respectively.

Most of the parents are not very educated, 56.2 percent fathers and 16.2 percent mothers are graduates again 7.5 percent fathers are post graduate and there are no post graduate mothers.

2. 75 percent parents feel that their children are not enjoying the same environment as to what they had in their childhood. Because of over population the environment has completely changed.

They also believe that increase in population deteriorates the standard of living.

3. From this study, it is revealed that an overwhelming majority (91.25%) of parents feel that children in big families with limited income will suffer for want of food and clothing.

Again 95 percent of the parents are of the opinion that all parents expect to educate their children, to feed and to take care of their children well.

4. It is observed from the study that 97.5 percent parents feel that education can motivate people for responsible parenthood.

Cent percent parents are aware about population explosion and they feel that to control population, both family planning and population education are necessary.

Whereas 18.75 percent of the parents confused population education with sex education even then they are not against population education. Whereas 81.25 percent parents have idea that population education is not sex education.

5. According to the study, it is observed that cent percent parents feel the need of imparting population education. But they differ in their views as to why do students need population education. 7.50 percent think that population education is needed for better understanding of population growth, 17.50 percent think the need of population education to help minimize the population problem. 8.75 percent feel that population education is needed to check population explosion. 66.25 percent of parent feel the need of population education for all the above.

6. Another revelation of this study is that cent percent parents are in favour of imparting population education in the college level. They feel that knowledge of population education is necessary for both boys and girls. To control population explosion both boys and girls must be aware of its ill effects and these students are the future parents. If population education is included in the college curriculum it will ultimately be beneficial for the country, because education can motivate students for planned and responsible parenthood. Some of the parents feel that family planning programme will be successful if knowledge of population education is given to the students.

In India most of the female population goes for marriage after graduation. So parents feel that knowledge of population is essential for female before marriage. It creates population awareness among them and creates a mind to control it.

Cent percent parents agree that population education is a good programme and very much needed.

5.1.4 Other Stake holders view:

Community members like N.G.O. Doctors, Health workers, Members of municipalities etc.

It is observed from the study that cent percent members of N.G.O., Doctors and others are aware of rapid population growth and population education.

It is also revealed that, they are also highly in favour of inclusion of Population education in the college curriculum.

DISCUSSION

Having analyzed the problem of galloping population in its various facets and taking help of the empirical data in assessing student's awareness and stake holder's perception towards inclusion of population education in the degree curriculum as a method of controlling population, this work has revealed that education has an important role as a means to control the population explosion in India. Education as one of the social processes and has an important nexus with the explosion of the population and a study of the variables "which connect the problem of population explosion".

In the context of a developing country like India where the resources are limited, the excess of population directly impinges on the quality of the life of the people. As the population is unmanageable and the resources are limited, people can not afford to lead a better life, have reasonable economic comforts as well as a certain measure of social security and also lack sufficient leisure and means for the pursuit of cultural values. Any governmental planning for the increase in the rate of growth of economy has a co-relation with the growth of population. The economic growth if not adequate, no surplus would be available for the population to realize the cherished social goals as constrained in the preamble of the constitution of India. The nation would be at a level of a bare survival and would not be in a position to prosper.

It is observed from this study that almost all students, teachers, parents and community members viewed that education can motivate people for responsible parenthood and they felt that education is the only means by which population explosion can be controlled.

The explosive population growth in our country is undermining all efforts of the Government towards socio-economic development of the country and improvement of the standard of life of its people. It has been felt by some intellectuals, that a high degree of economic and social development must be waited, which will automatically lead to fall in the birth rate. However, there has been a marked change, and some social analysts have been arguing that for economic, social and environmental reasons Government must not regard the population question as outside of their concern, and highest priority needs to be given to population control, as it is the single most pressing problem being faced by the country.

The unchecked population growth increases the pressure on finite national resources and ultimately destroys the eco-system. A world bank survey report once said that if the third world countries would not control population than India along with Pakistan, Bangladesh, Sri-Lanka, Malaysia, Thailand, Nigeria, Uganda, Indonesia and Kenya would slip to the position of fourth world.

The Government of India has taken family planning program to control population. But family planning is not successful in India because of lack of awareness among general public. It is observed in the study that some students, teachers and parents viewed that to make family planning programme

successful, knowledge of population education is very much essential for the student. It helps students to think in right direction and also they can motivate others to think in a similar way.

Education is regarded as the most potent agency, medium as well as tool of social change and modernization. Through education, greater and more effective awareness of social, economic and national repercussions and consequences of unjustified population growth can be created among the youth.

Population education is a moulder of attitude and creator of predispositions to a planned life. Students develop a certain type of thinking right from the college stage and they should be helped to think in the right direction. Education can bring about a change in attitudes and behaviour through transmission of relevant information with guided socialization process.

This work has revealed that almost all students, teachers, parents and other community members feel that population education should be included in the college curriculum because, college students are mature enough to understand the population problem and the need to tackle it.

It is also observed from the study that the students are willing to learn more about population situation of the country and the relevance of population education.

Population explosion is almost a world-wide phenomenon which is exercising the minds of all concerned with the welfare of humanity. In India, population expansion and staggering growth rate in all fronts have assumed

the proportions of an emergency which calls for all out effort on several fronts. Education is one of the important ones. It is now being increasingly realized that in order to sustain the success of all family planning programme and efforts in the direction of lowering the growth rate and containing the population explosion, education should play a vital role by providing population education to the younger generation. Teachers have close contact with the younger generation and they are the right persons to teach population education. Also, most of the teachers are better educated than average Indian parents. Hence, teachers should be entrusted with imparting population education.

But it is observed in the study that the teachers themselves are not well prepared to teach population education because they do not have clear idea about the subject. Some teachers confused population education with sex education. On reviewing the research studies conducted on population education in Assam & other states, it is found that there is a confusion and lack of clarity regarding the concept of population education; hence pre-service and in-service training for teachers is very essential to impart population education.

Population education should not be confused with sex education. There should be no direct reference to such terms as "family planning." Population education emphasizes the students understanding of the impact of population growth on the individual, family and national levels. Population education helps to develop appreciation of the small family norm. It aims at training the younger generation for their future role as responsible parents and citizens.

IMPLEMENTATION

We are at the beginning of devising a teaching program for population education and there exists a great opportunity awaiting us to evolve materials and teaching in a way that will really suit our local conditions.

The study shows the student's, parent's and teacher's views very favorably towards the inclusion of population education in the degree curriculum.

There is a pressing need to convince all teachers of the importance of population education to day. Teachers must be given a clear understanding of the concept of population education and the means for its implementation. The success of the population education programme ultimately depends on the teachers Co-operation and involvement. When teachers are taught the integrated approach to population education, they will not feel it as an additional burden.

The first step would be in providing the appropriate training to teachers-like- in service training to impart population education; provide orientation to the teachers with regard to implementation of population education.

Colleges should arrange extension lectures for teachers in population education etc. Periodicals on population education could be published for the information and use for teachers. Library and Information Centers could be provided for the guidance of colleges.

Also, the preparation of reading materials as well as audiovisual aids for use in the colleges is needed. The university can develop curricula, materials and methods which are relevant to a large number of our pupils. These will have to be graded to the age groups and understanding of pupils, suitably interwoven with other related subjects. Furthermore, reading materials which the students could happily use on their own, provide a valuable adjunct. Very exciting possibilities exist in creating such new and up-to-date means of advancing knowledge about the world we live in.

This report hopes to contribute to the awakening of the need for all of us to pay more attention to proper and effective co-ordination of population education with degree curriculum, with ultimate view of creating awareness about population problems and acceptance of small family norms as a way of life.

Following steps are necessary for effective implementation of population education.

1. Education is a useful instrument for solving the gigantic problem of population control in India. The rationale of the role of education in population control is based on the proposition of education as not merely an abstract aggregation of rules but an effective and potent instrument of social change. Education influences human behaviour including reproduction. Hence, education should be used in an increasing manner for the population control in India.

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2. Population education integrated with other subjects should be included in the college curriculum. Further research should be encouraged in this area.
 3. Refresher courses should be arranged for the teachers on population education.
 4. It is evident from the empirical study that, the students and teachers so far are not sensitized about the over population of the country, which is the root cause of many problems, including crimes in our society. Hence they should assume an active role.
-

SUGGESTION FOR FURTHER RESEARCH.

No investigation is worth the name which claims to be final, exhaustive and perfect. This investigation, thus open doors and paves the way for further research in the area.

The investigator most humbly share the feeling expressed by K.K. Bhatt, 1961.

“The end of a research is the beginning of another and probably many more; for the done, that is always small, appears to be insignificant, as compared against the vast undone. There can be a sense of achievement, but never be of perfection.”

Therefore, it would be in the fitness of things to suggest problems for further research, which may be undertaken. They are listed below.

1. The present investigation was undertaken as one randomized group but large students can be selected for a similar study.
2. An investigation could be undertaken on the secondary and higher secondary students, parents and teachers awareness and attitudes towards population education.

3. A comparative study about the views regarding population education among the teachers of Arts stream, Science stream and commerce stream can be conducted.
 4. Survey of college principals can be conducted to ascertain their attitudes towards the role of the college and of teachers in imparting population education.
 5. The effect of college climate on attitudes of college students on population education can be studied in details.
 6. The effect of mass-media on attitude formation of population education of students and parents can be studied
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CONCLUSION

On the basis of the findings of the study it can be concluded that the teachers and students highly realize the need for the control of population in India and they feel that education is the main instrument as a solution to population problem.

The students, teachers, parents, and members like N.G.Os and Doctors are also highly in favour of inclusion of population education in the degree curriculum as a measure to control population growth.

Concluded with a statement made by Philosopher & educationist Dr. S. Radhakrishnan, former president of India,

“If population is not checked, our progress would be like writing on the sand with the waves of population growth washing away all that we have written”.

CHAPTER-VI
SUMMARY OF THE STUDY

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6.1 Statement of the problem.

The research problem for the present investigation is confined to analyze student's consciousness on population matters. The present investigation would also analyze the students, parents, teachers and some concerned members reaction on population education as part of degree curriculum. Therefore, the statement of the research problem may be entitled "A study of population education awareness of college students and stake holder's perception towards inclusion of population education in the degree curriculum"

6.2 Objectives of the study.

- 1) To study the student's knowledge and understanding about population situation and population education.
- 2) To study the student's knowledge and understanding of ill effects of the unchecked growth of population on the life, health and nutrition of family, economic condition of the country, education, environment and natural resources and their attitudes towards inclusion of population education in the college curriculum.

- 3) To study the teacher's and parent's knowledge and understanding about the concept, scope and importance of population education.
- 4) To examine the attitudes of teacher's, parent's and community members towards imparting population education at degree stage.
- 5) To develop an understanding of checking population growth through planned parenthood.

6.3 Assumptions of the study.

The following assumptions have been formulated for the present study.

- a) It is assumed that student's knowledge and understanding of the population situation & population education varies in sex of the students, terms of location, and stream of the study.
- b) It is assumed that the awareness level of the students with the evil effects of over population and their attitudes towards the inclusion of population education in the college curriculum varies in sex of the students, terms of location and stream of the study.
- c) It is assumed that there is a difference of level in knowledge and understanding among teachers and parents about concept, scope and importance of population education.

- d) It is assumed that teachers, and parents attitude towards inclusion of population education in the curriculum differs.
- e) It is also assumed that the students will be able to understand the fact that family size can be controlled by planning parenthood to check the population growth.

6.4. Delimitation of the study.

The study will be delimited within the greater Guwahati area and among the degree students, their parents and their teachers and some community members.

6.5. Design of the study.

The study is an empirical one & descriptive in nature. The detail of the steps taken to carry out the research work is given below.

6.5.1 Population and sample.

- a) The researcher has selected three year degree students, their parents and teachers and some community members as the population for this study.
- b) The sample of students, parents and teachers has been drawn from degree colleges of Greater Guwahati, out of 20 colleges of greater Guwahati 16 colleges are from urban and 4 from semi urban areas. Each of students,

parents and teachers are selected as sample from each college. In order to draw an adequate and representative sample and to keep it free from bias, technique of random sampling was applied. Community members are from some N.G.Os, Doctors, Health Workers and Municipality.

6.5.2 Tools used.

The researcher constructed and developed questionnaire and interview schedule as research tools. Separate questionnaires were prepared for students, parents and teachers.

Population Education questionnaire deals with four sub-test. The four sub-tests refer to the dimensions such as Knowledge, awareness, understanding and attitude. The population education questionnaire seeks to identify the Knowledge, awareness, understanding and attitude of students, teachers and parents on population matters. Interview schedule was prepared for community members.

6.6. Data collection

The questionnaire was administered to students, parents and teachers of 20 degree colleges of Guwahati which is known as "Greater Guwahati." The researcher contacted teachers for their Co-operation in filling up the questionnaire by themselves as well as by student and parents of three years degree course, students of three years degree course belong to the age group of 19 to 21 years which is a fertility age group as well as reproductive behavior

age group. The researcher had to explain the instructions to teachers and students before filling up the questionnaire, so that they did not face inconvenience in responding to the questionnaire. The researcher also tried to convince them to maintain the secrecy of their responses. The respondents were also instructed not to consult any question with their colleagues while filling up their questionnaire.

On completion of the filling up of the questionnaires they were collected from the respective respondents and the researcher expressed her gratitude to all the respondents.

6.7 Statistical technique.

The investigator used the following statistical techniques for the analysis of data.

In the present investigation the data have been analyzed both quantitatively and qualitatively. In interpreting and analyzing the data the following methods have been used.

- a) Tables b) Simple percentages c) Graphical representations.

10. Major findings

- 1) There is no difference of student's knowledge and understanding of population situation in terms of sex of the students, stream of study and in terms of location.

- 2) In case of teachers and parents, the types of location and educational qualification have no effect on their knowledge and understanding of the meaning, concept, scope and importance of population education.
- 3) The students and teachers showed extremely high degree of awareness of population problem.
- 4) The teachers and students very highly feel the need for the control of population in India.
- 5) The students, parents and teachers have a highly favorable attitude towards education as a solution to population problem.
- 6) All most all the students, parents and teachers feel that, family planning is necessary to control population but to make family planning successful, awareness about population among the masses is very important.
- 7) The students, parents and teachers idea on population education is not very clear. Some parents, teachers and students confused population education with sex education.
- 8) All most all parents and teachers feel that population education is necessary for both boys and girls and adolescence is the best period to impart population education.

- 9) Students, parents and teachers are highly in favour of inclusion of population education in the college curriculum.
- 10) Majority of teachers feel that population education should be taught as being integrated with some other subject. But some favour population education should be taught as a separate subject.
- 11) Members of N.G.Os, Doctors and others are also in favour of inclusion of population education in the degree curriculum.

Implementation & Conclusion:

a) Implementation—

Education is regarded as the most potent agency, medium as well as tool of social change and modernization. Population education is a moulder of attitude and creator of predispositions to a planned life.

Hence population education should be imparted at the college level when pupils are at the stage of maturity. Teachers should easily "catch" them young as well as matured, since the matured young generation accepts new ideas much more quickly. There is a need to orient teachers in population education, so that they can impart population education effectively.

The most popular mode of introduction of population education is its integration with other subjects. This would develop an interest among teachers for social affairs and a strong sense of responsibility in regard to national development.

It is only China and Thailand which introduce population education as a single subject. One great advantage of introducing population education as a single subject is, in the coherence and visibility that the content may have; whereas integration with a number of subjects may result in dilution of messages. Even then, it is not possible for a developing country like India, because it is an expensive affair and at the same time it needs a long term planning.

e) Conclusion:

On the basis of the findings of the study it is concluded that the students, parents, teachers and members of N.G.O ands doctors are well aware about population problem and highly in favour of inclusion of population education in degree curriculum as a measure to control population explosion.

In conclusion it is to quote former Prime Minister, Pandit Jawaharlal Nehru—"We can never plan for the Nation, if the population grows at this rate."

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APPENDICES

APPENDIX -1

Questionnaire for student

A.

1. Location of your house: (A) Urban (B) Rural (C) Semi urban.
2. Sex: (A) Male (B) Female.
3. Your approximate age: (A) 18+ (B) 19+ (C) 20+
4. Stage of Education: (A) Part I (B) Part II (C) Part III
5. Stream of study: (A) Arts (B) Science (C) Commerce.

B.

1. Do you know the present population of Guwahati:
(A) Yes (B) No.

If yes, tick the present population of Greater Guwahati:

- (A) 20,00,0070.
- (B) 8, 08,021.
- (C) 2, 08,021.
- (D) 4, 04,024.

2. India is set to overtake china and become the most populous country in the world.
(A) Yes (B) No.

3. At present, the population of India is growing at the rate of about:
(A) One child per second.
(B) Two child per second.
(C) Three child per second.
(D) More than four child per second
(E) No idea.

4. Has the population explosion affected our day to day life?
(A) Yes (B) No.
If yes, how?

5. Do you feel that your class rooms are overcrowded?

(A) Yes (B) No.

If yes, why?

6. Do you have any playground (open space) in your locality?

(A) Yes (B) No.

If no, why not?

7. Do you think that employment is directly related to unchecked population growth?

What is your view in this regard?

8. Do you believe in the slogan "A small family is a happy family"?

(A) Yes (B) No.

9. With the rapid growth of population in our country many of our problems are also increasing:

(A) Yes (B) No.

If yes, what are the problems according to you?

(A)

(B)

(C)

10. There is no relationship between the population size of the country and the number of member in the family.

(A) Yes (B) No.

11. Parents of a small family can pay proper attention, love and care to their children.

(A) Yes (B) No.

12. If the population continues to increase rapidly, the sufferings and miseries of the people increase much.

(A) Yes (B) No.

13. with the rapid increase of population, law and order system in the country.

(A) Improves.

(B) Deteriorates.

(C) Does not improve.

(D) Does not deteriorates.

14. With the increase of population in a densely populated country, the number of trees, the amount of oxygen in air, the bird and animal population.

- (A) Increases.
- (B) Decrease rapidly.
- (C) Does not decrease.
- (D) Does not change.

15. Do you know what family planning is?

- (A) Yes (B) No.

16. Is family planning necessary to control population?

- (A) Yes (B) No.

17. Do you have any idea about population education?

- (A) Yes (B) No.

Do you want more or additional information regarding population education?

18. Do you have population education in your curriculum?

- (A) Yes (B) No.

19. Should population education be included in the curriculum?

- (A) Yes (B) No.

Please give your view.

20. Why do we need population education?

- (A) For better understanding of population growth.
- (B) To help minimize the population Problem.
- (C) To check population explosion.
- (D) All of above.
- (E) Any other? Please explain.

21. Knowledge of population education is necessary for?

- (A) Boys only.
- (B) Girls only.
- (C) Both.
- (D) No idea.

22. Population in India is increasing in an alarming rate. Give two reasons.

APPENDIX -II

QUESTIONNAIRE FOR TEACHER

(Please Tick the correct option)

1. Name of the College:

2. Are you married?

(A) Yes (B) No.

If yes, how many children do you have?

3. Do you think family planning should be adopted as a way of life?

(A) Yes (B) No.

4. What is the present population of greater Guwahati according to 2001 census:

(A) 25,00,0070.

(B) 12,00050.

(C) 8,08,021.

(D) 2,08,021.

5. Are you aware that:

A. India is the second most populous country in the world has 16% of the world population with 2.4% of the world area?

Yes /No.

B. Through China ranks first in the population numbers, India is more densely populated than China?

Yes /No.

C. India is set to overtake China become the most populous country in the world. Do you know by which year India overtake China?

(A) 2015

(B) 2020

(C) 2031

(D) 2040.

D. India's population is increasing so rapidly that she is adding around 17 million or more people a year that is equivalent to one of the following country.

- (A) New Zealand
- (B) Bangladesh
- (C) Pakistan
- (D) Australia

6. Do you believe that:

A. Population control is one of the most pressing problems before the country and the student. Give the first priority:

- (A) First
- (B) Second
- (C) Third
- (D) Any other.

B. The current level of population growth in India is a serious detriment to the welfare of the people.

- (A) If yes, give reasons:
- (B) If No, give reasons:

7. Do you believe that:

A. Solving India's population problems are the exclusive concern of the Government and not of the people. What do you think? Give opinion:

B. People of India are being motivated for responsible parenthood by Government's various family planning programmes, but a little success is achieved so far. Do you think that education can motivate people of planned and responsible parenthood?

- (A) If yes, how?
- (B) If no, why not?

8. What is your idea about population education?

9. Population can be stopped by:

- (A) Bringing awareness about the problems regarding population explosion.
- (B) Creating popular opinion about family Planning and its fruitfulness.
- (C) Both of above.

10. Is population education sex education?

11. Why do you need population education?

- (A) For better understanding of population growth.
- (B) To help minimize the population problem.
- (C) To check population explosion.
- (D) All of above.
- (E) Any other you think necessary.

12. For which age group population education is necessary?

- (A) Children.
- (B) Adolescents.
- (C) Adult.
- (D) No idea.

13. Do you think it is necessary to impart population education in degree stage?

- (A) If yes, why?
- (B) If no why not?

14. Should population education be included in the degree curriculum as a compulsory subject?

- (A) Yes
- (B) No.

15. How should we include population in the curriculum?

Explain your point

- (A) As a separate subject.
- (B) As an integral part of the subjects.

APPENDIX -III
Questionnaire for parents.

1. Name of the parents:

Father

Mother

2. Location of your house:

(A) Rural

(B) Urban

(C) Semi urban.

3. What is your educational Qualification?

Father:

Mother:

4. Total No. of Children:

5. Do you think that your children are enjoying the same environment what you had in your childhood?

(A) Yes

(B) No

If yes, how?

If No, why not?

6. Do you think that now educational institutions are overcrowded even after the increase in the number of institutions all over the country?

(A) Yes

(B) No.

If yes why?

7. Increase of population creating lots of problems.
What do you think?

(A) Yes

(B) No

8. Is it expected from the parents that they should:

- (A) Not educate their children
- (B) Not feed the children nutritious food.
- (C) Not take care of children's health.
- (A) Yes (B) No

9. Is it very likely that children in big families with limited income will suffer for want of food and clothing?

- (A) Yes (B) No

10. With the increase in population, standard of living

- (A) Improves.
- (B) Does not improve.
- (C) Deteriorates.
- (D) Does not deteriorate.

11. People of India are being motivated for responsible parenthood by Government's various family planning programmes, but a little success has been achieved so far. Do you think that education can motivate people for planned and responsible parenthood?

- (A) Yes (B) No.

12. Do you think that family planning and population education both are necessary to control population explosion?

- (A) Yes (B) No.

If yes why?

If no why not?

13. Is population education sex education?

- (A) Yes (B) No

14. Why do students need population education?

- (A) For better understanding of population growth.
- (B) To help minimize the Population problem.
- (C) To check population explosion
- (D) All of the above.
- (E) None of the above.

15. Should population education be imported in college?

(A) Yes (B) No

16. Why it is necessary to include population education in the college curriculum?

(A) Yes (B) No

If Yes, why?

If No, why not?

17. Knowledge of population education is necessary for;

(A) Boys only.

(B) Girls only.

(C) Both.

(D) No idea.

18. The knowledge about population is essential for female before marriage.

(A) Yes

(B) No

(C) Do not know

19. Population education is.

(A) Good programme and very much Needed.

(B) Not needed.

(C) In bad taste

(D) No idea.

APPENDIX -IV

Interview schedule

Q. No. -1.

Are you aware about the rapid growth of population in our country?

Q. No. -2.

Do you think it is necessary to make students aware about population growth?

Q. No. -3.

How population explosion can be stopped? Please give your view.

Q. No. -4.

What do you think about the problems created by population explosion?

Q. No. -5.

What is your idea about population education?

Q. No. -6.

Do you think that there is a need of population education in our college curriculum?

Q. No. -7.

How population education help students to control population growth?
Please give your view.

Q. No. -8.

As an enlightened citizen what is your personal suggestion to population control and successful implementation of population education programme?

