INTRODUCTION AND STATEMENT OF THE PROBLEM

NEED OF NUTRITION EDUCATION:

I.1. It is often said that until the basic causes of malnutrition—poverty, ignorance, population pressure and so on are eliminated, nothing of practical value can be done. There is some truth in this view, in the sense that improvement in nutrition and in the general standard of living are interdependent. The attack on malnutrition is an essential part of the broader campaign to ameliorate conditions of life in India.

I.2. One has to agree that an immediate necessity is the spread of nutritional knowledge. An education in nutrition is not simply a matter of urging the consumer to follow particular dietary practices, but it is necessary to spread knowledge of nutrition throughout the whole community, so that it may influence Governmental action and all who are in a position to influence the consumer in his choice of food. Administrators, doctors and public health workers in food
and agricultural development departments - all these and many others must learn about nutrition and its importance and make good use of this knowledge.

I.3. All children should be taught simple facts about food and diet as a part of health education. The education of girls, who will later be concerned with the preparation of food and feeding their families, is particularly important. The backwardness of education in general is an obstacle to such developments. Here again we come up against the interdependence of progress in different spheres of community life.

I.4. The United Nations Food Conference from the beginning laid stress on improving the nutrition of certain groups in the population which specially are vulnerable to the ill-effects of faulty and insufficient diet. The 'Vulnerable groups' includes pregnant and nursing mothers, infant, pre-school and school children. In some countries, the vulnerable groups have received careful and special attention. The development of maternity and child welfare work with more emphasis on the nutritional side, the organisation of school feeding schemes, the improvement of diet in boarding schools and hostels - all these are measures which concern the 'Vulnerable Group'. Take, for example, school feeding schemes (here and there) under different names (found in India in operation). But they are often on a small scale and on a temporary basis and likely to be terminated in any period of financial stringency. No public money spent will give better
returns in the long run than money spent on improving the nutrition of growing children and building stronger and healthier citizens.

1.5. To develop nutrition on the public health side specialised workers in health departments are needed. In a few states such workers are employed but the practice is not remarkable. Nutrition work is an essential part of public health activities and any organisation concerned with public health which does not include nutrition publicity work in its programmes is neglecting manifest duty. In the struggle towards this objective to impart the nutritional knowledge to the people for the improvement of general health is of primary importance. It is believed that even under the existing economic and agricultural situation a large proportion of malnutrition can be prevented through successful nutrition education. The community must be made nutrition conscious. The importance of using nutrition foods and easy ways of producing them needs to be emphasized. Wherever a particular food habit or belief is against nutritional considerations, it must be convincingly but subtly explained.

But, then, the cross-section of the population needs different approaches to nutrition education. The aims of such efforts and the methods used have naturally to vary according to the target groups. For instance, the objectives of nutrition education in a school may consist of the motivation of children to prefer foods best for their growth, health and
activities, learning good food hygiene and knowing locally produced foods and their use. Facts about pregnancy, child-birth, child-care and weaning and use of local food stuffs -these must be emphasised while educating the mothers. The most difficult task is to impart proper nutrition education to the rural communities. Prejudices and stronger food beliefs and illiteracy complicate the situation.

I.6. We know that raising levels of nutrition on a world-wide scale will require first increased production of food-stuffs, and secondly, better distribution in relation to population. Thirdly, improving nutrition will depend upon the development and extension of education, which is as essential to progress in solving the problems of food as it is to progress of any other kind.

I.7. The goal of providing enough good food for everybody will be difficult though not impossible, to reach. The solution of food problems, as we have seen, will depend greatly on the improvement of methods of agriculture and food production in large areas. Farmers who have never learnt to read or write are generally out of touch with modern development and often resist any change in traditional practices. Thus, the education of illiteracy is a vitally important factor in improving the food situation. Education at least at the primary level is the answer to this problem.

But education can not stop with the eradication of illiteracy, more is required if man is to make the best use of food resources. Vocational education and training in agriculture, food production, marketing and food distribution and nutrition must also be provided where they are needed. Here again the schools will have an important part to play, and there are also other means of bringing the necessary skills and knowledge to those who produce our food.

1.8. Raising levels of nutrition will also depend in part upon the education of the consumer. It is important that people should make the right choice of food. They do not always do so instinctively and education on sound habits of diet is therefore necessary, especially when choice is restricted by poverty or insufficient supplies. Even when the necessary foods are available in abundance, the individual does not always follow a good diet. Thus, without knowing it he may suffer from malnutrition because he does not receive all the nutrients which are needed for his health.

Education in nutrition, however, is not simply a matter of telling people what they ought to eat but they must learn what kinds of foods are essential for good health. But, advice on this point will be useless unless people are also taught how to produce or obtain the right foods or adequate substitutes for them. For example, it would be useless to ask to drink more milk when there is no dairy production.

1.9. Moreover, if education in nutrition is to serve any practical purpose, the income and purchasing power of the
consumer, as well as the availability of supplies, must be taken into account. When people have too little money, to acquire all the foods they need, emphasis must be placed on making improved use of the best staple foods which they can procure cheaply and by supplying with small quantities of other foods of high nutritive value. Very often the quality of diets can be improved without adding to the cost, by showing people how to prepare foods so that they retain more of their nutritive values.

Further more educational programmes must be based on a knowledge of existing food habits and customs which differ widely around the world. Any educational campaign to alter food habits must take account of which attitudes and practices as a set of dietary rules drawn up in one country may be entirely unsuitable for use in another.

But food habits are not static, they are constantly changing in a changing world, though many obstacles stand in the way of modifying them. Like other forces which affect food patterns, education in nutrition, shaped to the circumstances in which it is carried out can exert a profound influence.

---

2 FAO. World Food Problem No.2 : Ibid. P.38.
In many developing countries, planning for the needs of children is of great significance since the future development of these regions rests mainly on this segment of the population. At present, there is a great emphasis on education of children and rapid strides are taking place in this direction. Along with regular educational service, other needs of these children should be simultaneously attended too, so as to result in a balanced, all-round development.

Surveys carried out in India have shown that the diet and nutritional status of a large segment of the general population is still inadequate. Insufficient production, low purchasing power and social and cultural situation leading to ignorance about the relationship between food and health are most of the important reasons for such a situation. The school going child being an important member of the community also suffers from the effects of these.

It is increasingly being recognized that nutritional deficiency occurring in childhood can permanently affect the physical and mental development of the children.

Relatively speaking, a special situation exists with regard to the nutritional needs and nutrition programmes meant for school children. Firstly, school children are still in the phase of rapid growth and their nutritional needs are far greater than those of the rest of the community. Secondly,
school children can be easily reached in groups in the schools. Thirdly, since the children attend schools to acquire knowledge, they can be expected to be more responsive to nutrition education and can be expected to apply the knowledge about nutrition even at a later stage of life. Fourthly, importance of their nutrition and health status is more likely to influence the educational performance of the children.

In the early stages, the feeding of school children was largely an act of charity and was undertaken on a small scale by charitable organisations. The underlying motive was the relief of hunger. Recent advances in the science of human nutrition have brought to the surface the fact that the children need not only diverse foods, but also the right kind of foods. It has also become clear, that in most cases, children do not get the right kind of food at home even when they have enough to eat, and their health suffers in consequence. As a result school feeding begins to be scientifically planned to meet the nutritional needs of the children. In India a free school meal service was introduced in Madras City - as early as 1925. At present, school lunch programme has become the part of activities of the educational development and in this effort both national and international agencies are co-operating. Thus, year after year, the coverage under the programmes is increasing.

---

I.14. The list of the on-going supplementary feeding programmes in the country is given in following table.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the Programme</th>
<th>Ministry or Department</th>
<th>Sector</th>
<th>Beneficiaries covered as on March 1973</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mid-day meal programme</td>
<td>Education</td>
<td>State</td>
<td>10 lakhs</td>
</tr>
<tr>
<td>2</td>
<td>Feeding through Balwadis and Day care centres</td>
<td>Social Welfare Central</td>
<td>Welfare Department</td>
<td>2.13 lakhs, 16.5 lakhs</td>
</tr>
<tr>
<td>3</td>
<td>Special nutrition programme for pre-school</td>
<td>Social Welfare Central</td>
<td>State</td>
<td>16.5 lakhs</td>
</tr>
<tr>
<td></td>
<td>children in city slums and tribal areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Composite Nutrition Programme</td>
<td>Community</td>
<td>Central &amp; State</td>
<td>1.0 lakhs</td>
</tr>
<tr>
<td>5</td>
<td>Applied Nutrition Programme</td>
<td>Community</td>
<td>Centrally Sponsored</td>
<td>1184 C.D. blocks</td>
</tr>
</tbody>
</table>

Source: Annual report 1972-73, Government of India, Ministry of Agriculture, Department of Community Development, New Delhi.

: WHAT ARE THE APPLIED NUTRITION PROGRAMMES:

I.15. The Applied Nutrition Programmes can be defined as -

"coordinated educational activities between agriculture, health and education authorities and other interested agencies with the aim of raising the levels of nutrition of local population, particularly mothers and children in rural area."

The Applied Nutrition Programmes are conducted in many countries of the world and differ from other practical nutrition activities in specific ways as given below:

1) They are coordinated at all levels.
2) They are essentially educational activities developed through different channels to reach stated objectives.
3) They involve several disciplines, including health, agriculture, education and community development.
4) They use the self-help approach always involving community participation.
5) They use the positive method of learning by doing.
6) They are directed to the family and reach members of the family not only in the home but in schools, health centres, clubs and organizations and through the mass media.
7) They cover all levels by linking national food and nutrition policy with field activities at regional, community and family levels.
8) Their ultimate aim is to raise the levels of nutrition of the population. This will involve both food production and food consumption.

THE PRESENT RESEARCH STUDY:

In India, there are different feeding schemes as given in Table No.1. The Applied Nutrition Programme has been organized in India with collaboration of international agencies over a decade ago with special objectives suitable to the local conditions, to improve the dietary and nutritional status in general and particular of the vulnerable segment of the population by adopting various means including more production of protective foods, and educating the masses in dietary and nutritional principles.
The present study is devoted to Applied Nutrition Programme in India with certain limitations. From 1965, the investigator came into contact with this scheme at Gramsevak Training Centre, Gargoti, District Kolhapur (Maharashtra) taking the responsibility of teaching of Applied Nutrition Programme to the village and Block level functionaries.

While performing the duties at the said training centre, the investigator came across the limitations like non-availability of literature for both trainers and trainees; lack of suitable teaching material and also lack of proper guidance in respect of teaching the said programme and as a result he published a booklet on Applied Nutrition Programme in Marathi, the local language, in 1970, entitled, "SAKAS AHAR YOJANA", for his trainees just to inform what exactly the Applied Nutrition Programme is, and what people should follow in this respect.

During the supervisory visits to the block activities on behalf of training centre, the investigator made his personal observations as given below:

1) The majority of the villagers was not knowing what Applied Nutrition Programme is and how and when that has been started in their villages. What exactly the role they have to play in this and what are the benefits they may get.

2) No differences were observed between the villagers of Applied Nutrition Programme and others in respect of awareness of the programme activities.

3) The village schools and Panchayats, Youth and Mahila Mandals, are the organizations, which play an important
role in this scheme at village level. The success of the scheme depends upon the active participation of these bodies. But it was found that none of them were performing their duties properly.

4) In the village schools, the teachers completely remained away from this scheme. No educational authorities insisted to involve the teachers in this programme activities along with the school children as a part of their study.

5) The villagers and village school teachers were under the wrong impression that this is one of the supplementary feeding programmes to feed the pre-school and school going children on behalf of Government as a welfare programme.

6) People thought that it was not necessary to teach them how to eat and what to eat because they were eating such a type of food from the time of their ancestors. This shows ignorance of the villagers and the need for nutrition education in our community.

7) There were other feeding programmes conducted by different agencies in the same villages where this programme was introduced. This requires combined efforts to make the programme strong and effective.

8) There is no coordination among the different functionaries at village as well as at block level. A fixed duty was not given to a particular person in respect of this scheme. The block functionaries complained that they were not guided in this respect by the higher authorities, properly.

9) Applied Nutrition Programme is basically an educational programme but attention was not paid towards educational aspect.
the programme. This is a permanent programme and hence efforts should be made in that direction but nobody thought seriously over this point, even the responsible persons at higher levels.

10) The village level workers are at the bottom of any community development programme. The success of any scheme depends upon them only. They are not specialists but they should provide common sense answers to majority of the questions arising in the field of programmes like Applied Nutrition. They must know how assistance can be brought at the points where the villagers need such assistance. But it was observed that village level workers, like Gramsevaks or Sevikas and School teachers were not knowing even the concept of Applied Nutrition Programme and its principal objectives.

I.18. These observations led the investigator to think more on this subject and the present study is a product of his thinking. The above observations are personal opinions of the investigator and are taken as the base-line or hypothesis for present research study. With the said assumption the investigator selected his problem as - "TO SURVEY THE APPLIED NUTRITION PROGRAMME AND TO FINDOUT THE WAYS AND MEANS TO IMPROVE THE SAME THROUGH SCHOOLS."

The Applied Nutrition Programme is a coordinated and integrated, educational programme at all levels with many aspects. It is not possible to cover all the details during the present study. Therefore, the investigator
concentrated his efforts mainly on school activities. For this purpose he conducted a research project in selected schools, during the study period with the assumption that the Applied Nutrition Programme can be reorganised through schools on permanent basis in all the villages.

OBJECTIVES OF THE STUDY:

The specific objectives of the study have been spell out clearly. Here are the specific objectives:

1) To study the Applied Nutrition Programme in India.

2) To evaluate the working of the Applied Nutrition Programme in actual practices in terms of agreed points under the Master Plan of operation - review the general working of the programme, particularly with reference to training and nutrition education, organisational and administrative arrangements and coordination between different functionaries.

3) To see how the programme has created nutritional awareness among the beneficiaries - to find out the general impact of Applied Nutrition Programme over the common villagers.

4) To recommend the design for the reorganisation of Applied Nutrition Programme through schools to secure more effective implementation of the programme.

METHODOLOGY FOLLOWED:

To fulfil the above objectives, it was considered necessary not only to use the secondary information available with various agencies and functionaries involved in implementing the programme.
at National and State levels but also to review the working of the programme by conducting deep study by survey method in selected areas.

Accordingly ten blocks from three districts of Maharashtra along the 88 villages and four training institutions as a sample for the survey were selected. The details of the methodology is given separately in Chapter -III of this thesis.

The investigator would like to suggest ways and means to improve the entire programme. The village schools are the media or centres taken for this purpose and with this view the investigator conducted an experiment in the selected schools. The technique followed therein is given in Chapter -III of this thesis.

LIMITATIONS AND SIGNIFICANCE OF STUDY:

I. 21. The study has got some limitations and restrictions as it is not possible to carry out the survey all over India and Maharashtra too. The survey was mainly concentrated on the ten programme blocks and their 88 programme villages, those which were under the supervision of Gramsevak Training Centre Gargoti and Kolhapur. However, this survey sample may be said to be representative of Maharashtra because these blocks and villages are distributed in three typical districts of Maharashtra. Secondly, the assistance and organization and administrative pattern is the same all over the state. Therefore, during the period of study emphasis was given more towards the situation of Maharashtra.
The experimental study conducted in eight schools of two blocks of Kolhapur district is also a very small area, considering the country as a whole. This may be called a trial experimental study and for the final generalization and conclusions, it may be necessary to conduct other such experiments on a wider scale in other parts of the country.

However, the writer of this thesis feels that the results and recommendations based on this study, definitely can be a guide-line for the planning and reorganization of the Applied Nutrition Programme at the National level. This study may point out the shortcomings before the planners and administrators including the functionaries of all levels. At present the scheme runs on pilot bases. To cover all villages and population with this speed, requires years together. This is injustice to the uncovered areas. To avoid this the programme may be introduced through schools as there are schools in most of the villages in India. Secondly, to change food habits considering principles of nutrition is the main object of Applied Nutrition Programme. This can be possible at an early age of life - school age life. The schools are the permanent institutions of the community where the school curriculum may be planned in such a way that the schools can fulfilled the said objectives.

OUTLINE OF THE STUDY:

I.22. The study can be divided into two parts - the survey of the Applied Nutrition Programme and the experiment in the selected schools.
The first chapter deals with the need of nutrition education and selection of the present problem, definition of the problem as well as limitations and significance of it. The Second Chapter is devoted for the general study of Applied Nutrition Programme in India, along the references from other countries. The third chapter is related with the techniques and procedures those have been followed in survey and experiment. The survey reports are presented in Chapter Four. In Fifth and Sixth Chapter the study of experimental areas and its planning as well as the experimental activities those have been carried out in the experimental schools are given. An evaluation report of the experimental approach is given in Chapter No. Seven. The discussions regarding the survey findings and the experimental results have been done in Chapter Eight. In Chapter Nine an attempt is made to give the summary of the work. And the recommendations based on the study are listed in last Chapter No. Ten.

The material like booklet, notes, tools of research, etc., are listed separately in a second Volume of the thesis as they are original contribution of the investigator.