

**THE ECONOMICS OF THE MID - DAY MEAL PROGRAMME**

**BY**

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## A C K N O W L E D G E M E N T

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## LIST OF ABBREVIATIONS

			PAGE NO.
1.	F.A.O.	- FOOD AND AGRICULTURE ORGANISATION	5
2.	N.R.C.	- NATIONAL RESEARCH COUNCIL	5
3.	G.N.P.	- GROSS NATIONAL PRODUCT	6
4.	ICMR	- INDIAN COUNCIL OF MEDICAL RESEARCH	10
5.	ICAR	- INDIAN COUNCIL OF AGRICULTURAL RESEARCH	10
6.	NIN	- NATIONAL INSTITUTE OF NUTRITION	10
7.	UNICEF	- UNITED NATIONS INTERNATIONAL CHILDREN'S EMERGENCY FUND	14
8.	IARI	- INDIAN AGRICULTURAL RESEARCH INSTITUTE	10
9.	No	- NUMBER	

## INTRODUCTION

"Children are the future citizens and they should be given the opportunity to be mentally and physically alert" (Devadas, 1973). Demographic studies reveal that poor families consist of larger number of children. A large per centage of children in the primary schools are from poor families who are unable to give adequate food. According to Rowe (1976) financial difficulty is one of the major causes of malnutrition accounting for about 54%. Lack of food also has been found as another cause which was calculated as 22%. "We are guilty of many errors and many faults, but our worst crime is abandoning the children, neglecting the foundation of life. Many things we need can wait; the child cannot. Right now, is the time his senses are being developed. To him we cannot answer Tomorrow, his name is Today". (Gabriela Mistral).

There is a relationship between food and health. The diet consumed must be adequate in quantity and quality. Proper diet is a pre requisite for an individual's physical and mental development. Various studies conducted in different regions of the world has proved beyond doubt, that malnutrition in early childhood affects mental abilities. Efficiency in work is related to health, which is a result of good nutrition.

Poor health among the world's population is caused more by a lack of access to resources than by a lack of knowledge.

Adequate food will enable children to attain optimum physical and mental health which is needed for concentration on studies, maximum performance in school and capacity for work.

Malnutrition is responsible for the high mortality and morbidity rates in India. The National Institute of Nutrition, Hyderabad reports that 65% of India's toddlers in the lower income levels, suffer from moderate malnutrition and 18% from severe malnutrition. Recognising the huge dimensions of the consequences of malnutrition among children, the central and State governments have instituted several feeding programmes as nutrition intervention measures in the country.

The Midday Meals Programme in the Primary schools is one such effort.

The provision of meals in a health and clean environment influences the physical and mental health of the children. The parents will also be able to gain, in terms of money and quality of food.

Since the midday meals programme involves a tremendous investment of the state's resources and inputs by educational

institutions, it is necessary to economise the programme. Today Tamil Nadu is ahead of all states with its midday meal scheme covering 30600 primary schools benefiting 1065000 pupils for 200 days in a year. Hence this study of the "Economics of midday meal Programme" was undertaken to analyse the difficulties and economic problems faced by the schools and to find out measures suitable for solving the problems.

The objectives of the study were to bring out:

1. The effort of the state government to provide midday meal programme;
2. The role played by the primary schools in the provision of meals;
3. The methods followed by the institutions to evaluate the benefits to children by way of the programme and
4. To calculate the cost per child by way of the school lunch programme.

It is hoped that the findings of the study will help in improving the massive welfare effort and bring rich dividends to the children and the community.

## **REVIEW OF LITERATURE**

The review of literature is discussed under the following headings.

1. Malnutrition and the health of children
2. Causes of malnutrition and hunger
  - a. Growth of population
  - b. Poverty
  - c. Instability of food supply
  - d. Lack of national nutrition policy
3. Effects of malnutrition
4. Cost of malnutrition
5. Steps taken to solve the problems of malnutrition
  - a. Nutritional orientation to Agricultural policy
  - b. Feeding Programmes
6. The Midday meals Programme.
  - a. History of the Midday meals Programme
  - b. The School Lunch Programme in India
  - c. The Programme in other countries
7. Programme under Five Year Plans
8. Difficulties faced by the institutions
9. Studies conducted so far.

## 1. Malnutrition and the health of Children

The extent and nature of malnutrition estimates by the Food and Agriculture Organisation (FAO) (1975) and the World Bank respectively suggests that around 450 million and possibly as many as a billion. "Malnutrition causes millions of premature deaths each year. It is a contributing factor to diseases in many parts of the world ranging from schistosomiasis in Africa, to some kinds of Cancer in the United States of America. In India 40% of the children die before they reach the age of five, mostly from nutrition related causes. A substantial portion of survivors suffer handicaps of learning, behaviour, and working capacity because of inadequate diet and recurring illness". (N.M.C. Study 1977).

## 2. Causes of malnutrition and hunger

### a. Growth of population and of national income

The overall population of developing countries reached an annual rate of increase of about 1%. From 1950 to 1975, the world population grew from 2.5 billion to 4.6 billion (F.A.O. 1977). According to the 1981 census the Indian population is 68.38 crores which implies an increase of 13.56 crores over the figures of the 1971 census. The present population of India accounts for 15.33% of the world population.

The growth in GNP in India in actual terms during 1978-79, was around 4 to 4.5% as against 7.2% in 1977-78 and an average of 5.9% for the last 3 years. (Manorama Year Book, 1980). The main reason for the decline lay in the changed composition of the increased output along with the increase in the growth rate of population.

b. Poverty

Poverty is the lack of resources with which to buy or produce enough food. Insufficient food in turn combines with disease, apathy and other effects of poverty to accentuate malnutrition and lower human productivity. Poverty exists everywhere, but its extent is massive in a considerable number of countries. The World Bank estimates that 750 million people in the poorest nations live extreme poverty with annual incomes of less than 75 dollar. Even in the middle income developing countries, World Bank estimates show that 170 million people at the extreme poverty level and hundreds of millions of others are subsisting at income levels less than one third of their national averages. Most of the extreme poverty is due to low national output and income, with malnutrition of the income that is available. According to the available statistics, the people living below the poverty line was calculated as 46.33% (1977-78) in India. This is expected to increase to 290 million in the near future.

c. Instability of Food Supply:

Sharp fluctuations in food supplies and prices have seriously aggravated the problems of hunger and malnutrition in many parts of the world. Much of the instability arises from acts of nature, such as extreme weather variations or heavy infestations of pests and diseases that destroy crops and animals. Price and instability of supplies have their greatest effect on producers and consumers who are poor and lack the nutritional food or financial reserves to endure periods of shortages. In periods of glut, sharply declining prices slash the incomes of the poor farmers who cannot afford to hold their crops until the prices rise again.

In 1973-74, in India the total food grains production was 104.65 million tonnes. In 1974-75 the total production fell to 99.83 million tonnes, where as in 1975-76 it recorded an unprecedented increase at 121.73 million tonnes, again falling to 111.17 million tonnes in 1976-77, and increasing to 125.60 million in 1977-78. (1980 -Manorama Year Book). Thus the production of food grains and its supply have been fluctuating over the years.

d. Lack of National Nutrition Policy

Malnutrition is widespread both in countries where food is scarce and in countries where food is plentiful. This suggests that decreasing malnutrition depends not only on

on increasing overall food supply and stabilising national food supplies but also on decreasing the number of people below poverty income and on improving, dietary practices through education and other interventions. These in turn, point to the need for governments to give greater attention to the nutritional effects of their programmes and policies.

"Governments, private organisations and individuals make decisions and take actions that affect the nutritional status of population with little or no knowledge of the nutritional consequences. The extent of malnutrition could be greatly decreased with greater knowledge about appropriate ways to influence favourably the content of diets, the physical and social environment in which the malnourished live and the distribution of food. (F.A.O.) (1977).

### 3. Effects of malnutrition

Nutrition is one of the factors most closely associated with growth in infancy and childhood. Many studies in experimental animals have shown that malnutrition during the critical phases of early growth can lead to stunting of physical growth which cannot be fully corrected even if optimal diets are made available in later years. It has been suggested

that the short adult stature of people in many developing countries may be the result of malnutrition in early childhood. Malnourished children may emerge from childhood lacking the ability to express their full genetic intellectual potential, particularly if the nutritional stress occurs at the critical time when the nervous system is developing. While viewed as problem of an individual, the reduction in intellectual capacity may appear not so important. But when this occurs in a sizeable proportion of the community, it must be considered as serious from the point of view of national development.

As a result of malnutrition, the capacity to work is lowered because of apathy, lethargy, lack of initiative and lack of stamina. Several studies report that improved nutrition results in increased productivity. Hence the nutritional status of a country influences significantly, not only its health status, but also its socioeconomic development.

#### 4. Cost of malnutrition

Nearly 15 to 20% of the hospital beds in some parts of India are taken up by cases of frank malnutrition. (Task Force Report, 1973). The cost of child wastage includes the cost of going through a pregnancy and child birth, cost of lactation, cost of food consumed by the child, cost of

Clothing, cost of education, cost of time spent in rearing the child and the cost at the time of death of burial and rituals associated with death. Till such time that a child reaches the productive age, there is no return to the nation on all the inputs connected with the development of that child, and the death of a child any time during this period should be considered as a total loss to the economy of the country.

Large families with rapid turn over of children automatically imply an unfavourable balance between producers and dependants and all the expenses incurred on a dependant is poor investment, unless <sup>he</sup> lives to become productive.

#### 5. Steps Taken to Solve the Problems of Malnutrition

##### a. Nutritional Orientation to Agricultural Policy

More increase in foodgrain production in the presence of economic constraints, cannot wipe out pockets of severe malnutrition in the country. It would be unfortunate, if in the quest for increased quantity, quality is sacrificed. Fortunately, the important nutritional dimension of the problem of cereal production has been well appreciated both by ICMR and ICAR. Co-ordinated programmes designed to ensure nutritive quality of high yielding varieties of cereals have been set up under the auspices of these two bodies at the NIN (Hyderabad) and the IARI (Delhi).

**b. Feeding Programmes:**

The long term and short term objectives of feeding programmes are:

- i. Feeding programmes cover on a priority basis the most vulnerable sections of the population;
- ii. The food ingredients necessary for the feeding programmes are locally available. Hence overheads in transport and storage are reduced to a minimum and eventual continuation of the programme through the community's own efforts will become possible;
- iii. The operational costs are reduced to the absolute minimum and there is maximum community participation.

Feeding programmes are operated among the tribals, slum dwellers, rural communities, vulnerable segments and industrial establishments etc.

**6. The Mid day Meals Programme**

The Midday Meals Programme is one of the important feeding programmes operated in the country.

**a. History of Midday Meals Programme:**

The school Meal Service <sup>was</sup> as organised on the basis of two determining factors, distance of the home from the school and the financial circumstances of the parents. The school lunch was originated for the purpose of improving the nutrition of

school going children. It had earliest beginnings in Germany, France and other continental countries. The most rapid development began in England early in 1900's. At the time of the Boer War, England discovered that three out of five men who presented themselves for military service were physically unfit. An investigation of the causes suggested that such physical condition was due to malnutrition during childhood. The final outcome of this discovery was the passage of the Provision of Meals Act of 1906, which gave local school authorities, the power to use school funds to establish lunches for the malnourished children. In most cases, the school lunch service is encouraged by a Central authority but the practical operation is almost invariably the responsibility of local bodies. The government assists financially the school feeding programme. The remaining support is derived from the Public or Private sources. Emphasis is placed on lunches for the primary school children (Devedas, 1967).

b. The School Lunch Programme in India

Since 1925, supplementary school feeding programmes have been <sup>IN</sup> operation in different parts of India. Midday Meals programmes are now provided to poor children on a modest scale in several states, notably in Tamil Nadu, Kerala, Andhra Pradesh, Karnataka and Orissa. The Government of Tamil Nadu was the first to give momentum to the scheme by coming forward

with a substantial grant in 1957, after observing the good results of people's participation and contributions to the Mid-day Meals Programme in many villages (Devadas, 1967).

The Department of Education of the Government of Andhra Pradesh runs the free mid day meals scheme for 12000 children of 4 to 14 years of <sup>age</sup> ~~age~~, with the help of Nutrition Officer and the School Medical Officer.

Assam has instituted a midday meal scheme only in the Kamalabani Development Block. In Bihar the East Indian Railway Administration runs a midday meal scheme <sup>for</sup> ~~for~~ the schools. The programme in Kerala was started in 1941. During the year 1961-62, the state had midday meals programme operating in all schools, departmental and aided through out the entire state.

The Midday Meals scheme in Tamil Nadu was started in 1925 by the Corporation of Madras as a remedy to solve two problems:

- a. Children attending the corporation's elementary schools from families of poor socio economic status were suffering from malnutrition.
- b. The poor socio economic conditions of the families forced the children to work without attending school. Initially started to feed 500 pupils, the programme made rapid progress with the number of meals increasing from

30,000 in 1929 to 75000 in 1961. It again increased to 119000 in 1972. "In 1978, the scheme covered 30600 primary schools benefiting 1065000 pupils for 200 days in a year" (Parvati Rao, 1978).

Maharashtra is unique in the sense that, the free mid day meals scheme consisted mostly of distribution of reconstituted skim milk powder supplied by UNICEF since 1942.

The Bombay CARE Feeding Programme which was inaugurated in February 1963 covers over 250000 municipal school children daily.

c. Programme in other countries

School Feeding has been an integral part of the educational system of some European countries for many years. Assistance was given to a number of countries by the United Nations International children's Emergency Fund in the form of foods.

In France simple and attractive school lunches are served which provide between 1000-1200 calories and 18-20 gms of protein from animal and vegetable sources.

In Japan, comprehensive school meal programme, covering the entire school going population is currently in operation.

In Phillipines, in addition to a school meal distribution programme, about 70% of the schools have established lunch <sup>counters</sup> ~~countries~~, where children can obtain a snack or supplement, for a small sum during recess. School gardens are used as teaching aids in some countries like Panama, China and Japan.

#### 7. Programme Under Five Year Plans

According to the Report of the Draft of Sixth Five Year Plan, during the plan period, the proposed coverage is 16.5 million children. An allocation of Rs.120 crores has been made for this programme. The government of India has also taken up the production of a food supplement known as 'Balahar for school feeding programmes.

#### 8. Difficulties faced by the Institutions

An examination of the economic feasibility is needed because of the fairly large capital costs of the programme. Problems relating to transport, storage and administration of feeding programmes have assumed importance in recent years.

##### a. Inadequate storage facilities:

Inadequate storage facilities have led to the deterioration of food stuffs used. As food received from abroad remains at various godowns for several days and occasionally for months,

before it reaches schools, it becomes stale. Further, the godowns are sometimes infected with pests. The Planning Commission suggests to have a phased programme for building godowns all over the country as a part of the integrated programme of nutrition in the Five Year Plans.

b. Movements of Food materials from port schools:

Under present arrangements while the cost of materials and shipment are borne by CARE, the state governments are meeting the expenditure on clearance of food consignments from ports, on transportation by rail and road and on storage, distribution, cooking and serving of meals. In areas where there are heavy monsoon rains and only a small quantity of food can be safely stored, securing fresh supplies over muddy roads is a problem.

c. Administration of midday meal programme

At the state level CARE and state government fix the number of school children who can be <sup>covered</sup> covered by the programme. There is lack of close co-operation between the Block Development Officer, the Education Officer, the District Education Officer, and the school Head Masters. It has been observed that only a few feeding centres provide part-time cooks. As a result,

students and teachers themselves do the cooking. The amount of time spent on cooking is estimated to be about ~~2~~<sup>2 1/2</sup> hours per day.

d. Contribution from the Community is Inadequate:

Despite enormous inputs, the feeding programmes have not produced any appreciable impact on the community continuity in the supply of foods is not maintained in several feeding centres.

The purpose of the programme is that the meal at school should supplement the home diet of the child. But this seems to be too often not the case. Since the child gets some food at school, the mothers tend to reduce a corresponding amount of his food at home. As a result, the school meals become a substitute rather than a supplement.

9. Studies Conducted so far:

1. The report of the conference on School Lunch Study (1948) reveals the regularity of attendance and better behavior and scholastic progress of the school lunch participating students.
2. A study of Portions and Cost of Type A School Lunches was undertaken (1957) by the Department of Institution Management, IDWA State College Ames. The study was to

indicate the differences in nutritional needs of boys and girls of varying ages and to develop menus and make adjustments in portion sizes which would meet these needs and be feasible from an operational and management standpoint.

3. A study on the Midday Meals Scheme in Shri Avinashilingam Basic School (1972) was conducted by Devadas. According to the findings, participants in school lunch had become more communicative. The number of children who talked freely was only 5 before the lunch programme where as it increased to 25 after the participation of the pupils in school lunches.
4. The Project Porhak study in Madhya Pradesh (1973) concluded that school meals programme avoid wastage and drop outs in the elementary schools.
5. A study of the Midday Meal Programme with special reference to the role of the teacher was conducted by the Punjab Nutrition Development Project in the Punjab (1974). The study concluded that active participation of teachers solve the administrative problems.
6. Evaluation of food and health was conducted by Hotes in 1976. This study revealed that there is a relationship between food intake and health. Financial

difficulty has been the cause of malnutrition which accounted for 54%.

7. A study on the "Habits and Educational Achievements of children attending and not attending school Lunch" was conducted by Devedas et al in 1978. There was a significant difference in marks between the school lunch participants and non participants. Most of the parents had favourable attitude towards the programme.
8. A study undertaken by NIN (1978) revealed that actually in 27% of children the school meal only served as substitute and not supplement hence the purpose of the Programme is truly defeated.
9. According to the Report of the Study of Feeding Programmes in Tamil Nadu, local contributions have been excluded from the proposed integrated feeding scheme. Transporting the food to one distribution point for all beneficiaries should result in Economies of Scale for the state government. The study came to the conclusion that their sample size beneficiaries was not satisfactorily significant for the state as a whole.
10. A study conducted by Bhatji in 1979-80 on the satisfaction of the parents regarding facilities and services provided in schools revealed that 161 parents were satisfied with the midday meals programme, provided in the schools.

## EXPERIMENTAL PROCEDURE

For this study on "The Economics of the midday meal programme", the steps involved were:

1. Selection of the area;
2. Selection of the method;
3. Preparation of the Questionnaire
4. Conducting survey and collection of data and
5. Statistical analysis of the data and interpretation of the data.

### 1. Selection of the Area:

Midday meal Programme is popular in Coimbatore District. Therefore in order to analyse the economics part of it, institutions were taken as sample. Since it was difficult to get 30 samples from the city itself, the village schools were also considered. Both private and government schools were considered, which constituted 2 private schools and 28 government schools.

### 2. Selection of the Method:

For the collection of data, primary data were used. The Questionnaire was filled by the respondents themselves.

### 3. Preparation of the Questionnaire

According to Davis and Johnson (1955) a questionnaire can be defined as a "systematic <sup>Compilation</sup> ~~compilation~~ of the questions that

TABLE I  
TOTAL STRENGTH OF THE SCHOOLS

Class	No. of pupils	Percentage
1.	3220	<del>32.82</del> 22.93
2.	2742	<del>32.76</del> 19.52
3.	2783	<del>23.48</del> 19.81
4.	2937	<del>24.38</del> 20.90
5.	2369	<del>19.66</del> 16.80
TOTAL	14051	99.96

Pupils taking midday meals:

Regarding the number of pupils taking the midday meals, 22.38% of the sample belonged to the first standard; 18.46% belonged to the second standard. In the third, fourth, and fifth standard, the pupils benefitting from the programme, constituted 20.43%, 20.84%, and 18.05% respectively. On the whole, 5256 pupils are taking midday meals in the 30 schools. This is depicted in the Table II.

**TABLE II**  
**NO. OF PUPILS TAKING MIDDAY MEALS**

Class	No. of pupils	Percentage
1	1176	22.38
2	970	18.46
3	1090	20.43
4	1071	20.84
5	949	18.05
	5256	100.16

(This information is depicted in the Bar diagram.)

**Preparation of the meals**

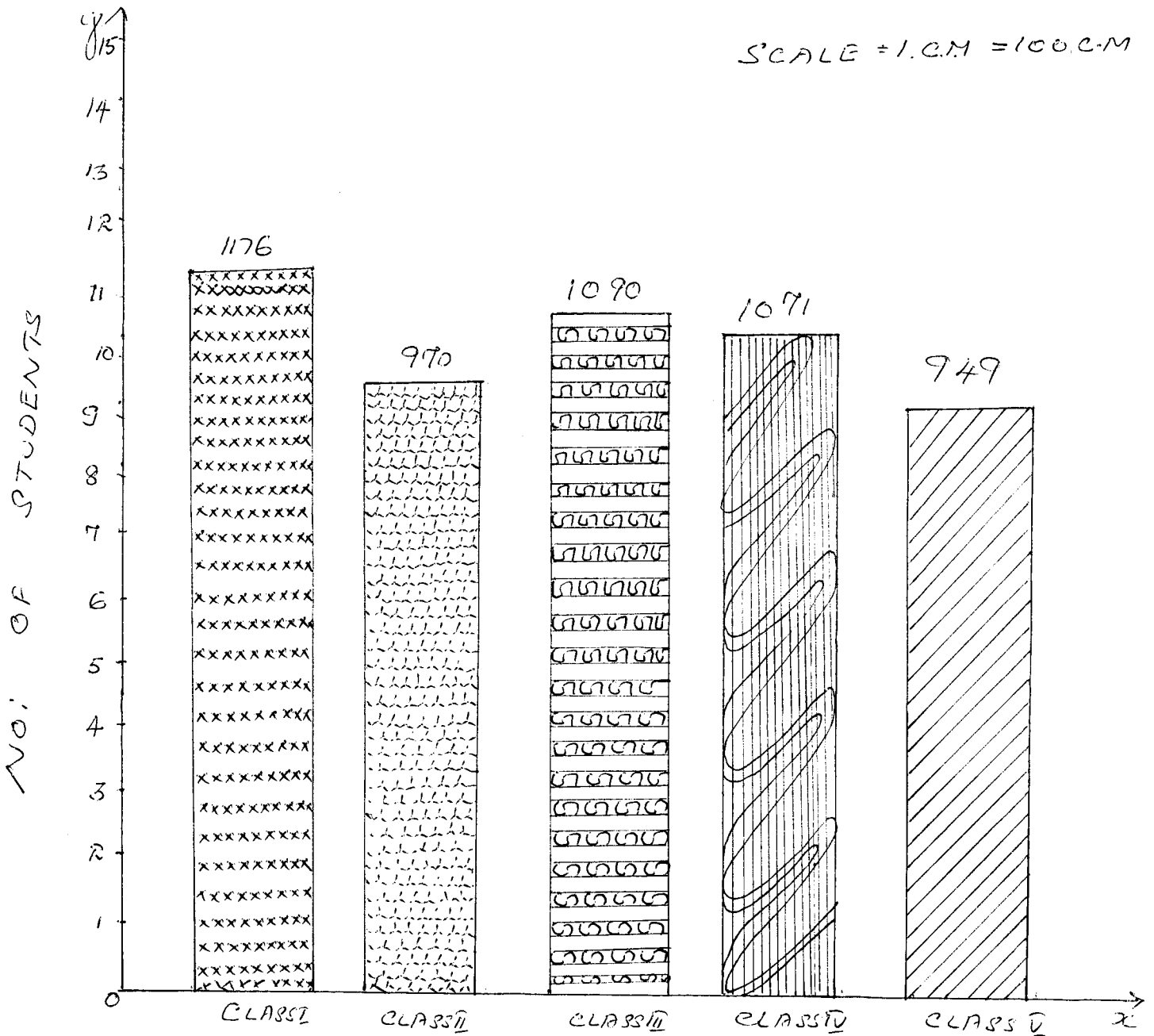
In the sample, 19 schools prepared the food in the school itself. The rest prepared the meals in the Municipality kitchen. The prepared meals were brought to the schools in the afternoons.

**Cost of the meal Per child per day**

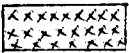

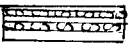

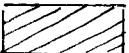
Since many of the respondents could not give the exact amount of all the ingredients, the investigator found it difficult to calculate the exact cost of mid day meal per child. Of the 30 schools, only 22 were able to furnish details about

# NUMBER OF STUDENTS TAKING MIDDAY MEALS

## FROM THE SCHOOL



### INDEX

-  class I
-  class II
-  class III
-  class IV
-  class V

### DIFFERENT CLASSES

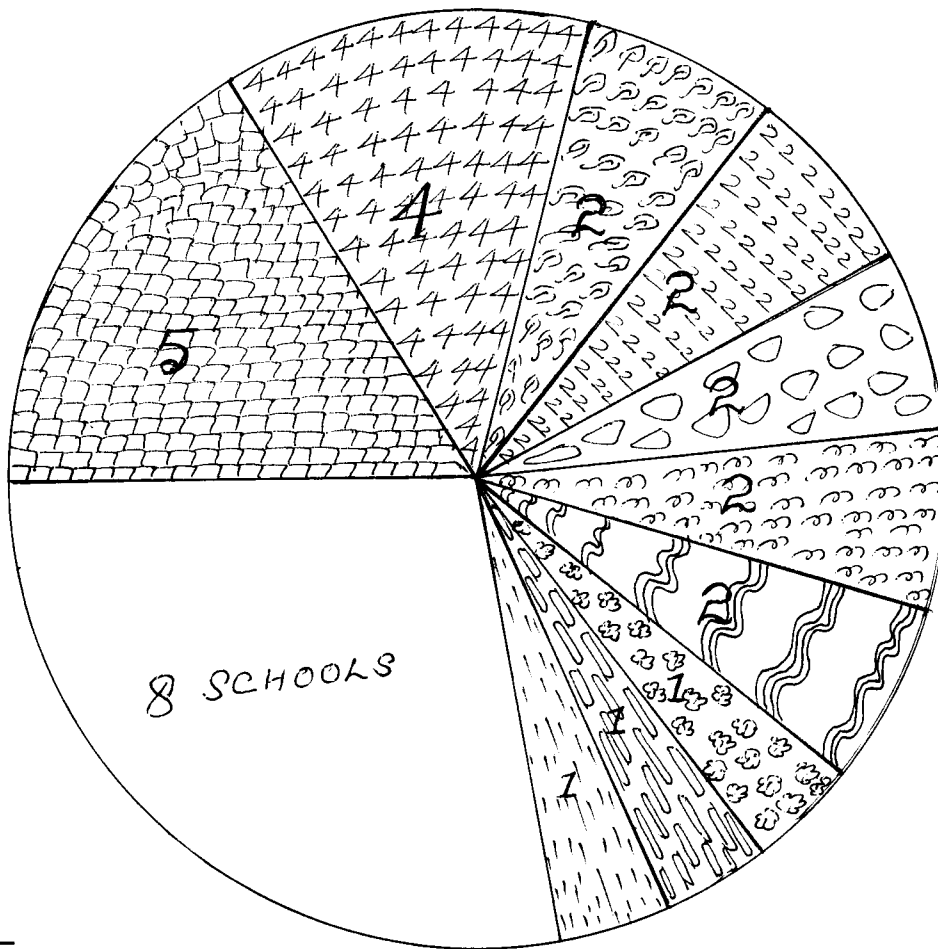
the cost of midday meals per pupil. The cost ranged between 15-17 paise per pupil in 16.6% of the schools, 17-19 paise in 6.6% of the schools, 19-21 paise in 6.6% of the schools, 23-25 paise in 6.6% of the schools, 25-27 paise in 13.3% of the schools, 27-29 paise in another 6.6% schools, 29-31 paise in 3.3% of schools, 35-37 paise in 3.3% of the schools, and 39-41 paise in 6.6% of the schools respectively. The information is depicted in the Table

TABLE III  
COST OF THE MEAL PER CHILD PER DAY

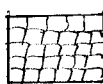
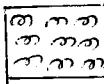

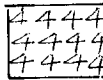

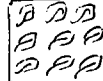
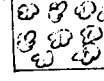
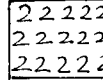
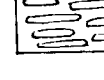
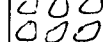
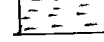
Class (cost in paise)	No. of schools	Percentage
15 - 17	5	16.6
17 - 19	2	6.6
19 - 21	2	6.6
21 - 23	-	-
23 - 25	2	6.6
25 - 27	4	13.3
27 - 29	2	6.6
29 - 31	1	3.3
31 - 33	1	3.3
33 - 35	1	3.3
35 - 37	-	-
37 - 39	-	-
39 - 41	2	6.6

(This is depicted by means of Pie diagram)

# COST OF THE MIDDAY MEALS PER DAY PER CHILD



INDEX

	15-17 (Paise)		27-29 (Paise)		Not mentioned
	25-27 "		39-41 "		
	17-19 "		29-31 "		
	19-21 "		31-33 "		
	23-25 "		35-35 "		

Amount (in paise)	No. of schools	Percentage
10	1	3.3
15	28	96.67

TABLE IV  
CONTRIBUTION FROM GOVERNMENT

The survey indicates that, government is the main contributor towards the midday meal programme. Except one school, all other schools receive funds in cash which is 15 paise per head. The fund received in kind by the school consists of 7 gm. oil per child and 10 gm. wheat per child. Contribution in cash is 15 paise to 97.67% of the schools and 10 paise to 3.3% of the schools.

Contribution from government

The survey shows that, out of the 30, only 3 schools raised kitchen garden. The ingredients obtained from the kitchen garden of one school were papaya and coconut, and from another school it was vegetables, and the third school did not mention anything.

Use of kitchen garden

Fund from other sources

The survey tried to find out whether the programme is financed by other sources also. The results show that, out of 30, only 3.3% schools get funds from other sources. This consists of a donation of Rs. 10 per parent towards the programme. The rest 96.67 % of the schools do not get any kind of such funds. This information is shown in the table.

TABLE V  
FUNDS FROM OTHER SOURCE

Amount	No. of Schools	Percentage
10 Rs./Parent	1	3.3
Nil	29	96.67 %

Problems in getting aid:

The analysis of the problems of different schools in getting aid was one of the aims of the survey. Of the 30 schools, 93.3% did not have any problems regarding <sup>aid</sup> and; 13.3% schools opined that the aid was not sufficient and 3.3% of the schools had the problem of irregularity in getting meals, since the preparation of food is done outside the school. This is depicted in the Table.

**TABLE VI**  
**PROBLEMS IN GETTING AID**

Item	No. of schools	Percentage
Inefficiency of aid	4	13.3
Irregularity of time	1	3.3
Nil	25	83.3

**Impact of the programme on children**

The survey revealed that in 43.3% of the schools there was regularity in attendance due to the programme. 26.67% of the schools recorded improvement in the performance of the students due to the programme. 10% of the schools observed improvements in the habits of eating of the participants of the programme. 20% of the schools did not find any beneficial effect of the mid-day meal programme. Table VII shows the information.

**TABLE VII**  
**IMPACT OF THE PROGRAMME**

Item	No. of schools	Percentage
Regularity	13	43.3
Good in studies	8	26.67
Habits of eating	3	10
Others	0	0
Nil	6	20

**Method of Evaluation:**

The investigator wanted to findout whether the schools, providing midday meals are following any method of evaluation of the programme. 76.7% of the schools did not maintain any method of evaluation of the programme. 23.3% of the schools observed the changes in height and weight of the students.

**Parents - teachers meetings**

Contact with the parents may help the institutions to provide better midday meals for the children. With this aim, the study included a question on parents - teachers meeting. 70% of the schools conduct parents teachers meeting and 30% does not.

Attitude of the parents towards the programme:

The attitude of the parents of the children studying in 93.3% of the schools were found to be favourable towards the programme. In 3.3% of the schools, the attitude of the parents was unfavourable, and in the case of 3.3% of the schools, there was no response from the parents.

Suggestions for improvement:

The heads of the various institutions were requested to give their suggestions about the programme. Their suggestions are 13% of the headmasters interviewed, wanted variety in the items provided, 3% wanted increased funds for the programme; 3% suggested the use of more vegetables; another 3% wanted milk products to be included, 3% were satisfied with the existing programme. 70% of the headmasters did not respond to this question.

TABLE VIII  
SUGGESTIONS FOR IMPROVEMENT

Items	No. of schools	Percentage
Variety in items	4	13
More funds	1	3.3
Preparation at school	1	3.3
More vegetables	1	3.3
Milk products	1	3.3
Satisfied	1	3.3
No response	21	70

Out of all these investigations, the investigator comes to the conclusion that the mid-day meal programme functions in a satisfactory manner. The opinion of the respondents about the lunch programme also stressed the same point.

## SUMMARY AND CONCLUSION

This study on the "Economics of the midday meals programme" was conducted with the aim of analysing how this programme functions in the schools, how far this gives benefits to the students, and the role played by the educational institutions in providing this programme. The main objective was to calculate the cost/child/day. From the Survey, the investigator comes to the following conclusions.

1. Of the 30 schools surveyed, a majority belonged to the government, so
  1. the programme functions very effectively in the government schools.
2. Of the total strength of the schools, the students taking midday meals in the first standard dominate others.
3. Nearly 65% of the schools prepares meals in the schools itself. This shows that the schools find it convenient to prepare the food in the school premises.
4. It is regrettable that only 3 schools have kitchen garden which provides extra vegetables and fruits to children.

5. Government is the main contributor to the programme. It gives on an average, 15 paise per child per day.
6. Only one school received funds from the parents. So the majority of the schools depends mainly on the government.
7. 13.3% of the schools in the survey, felt that the aid given was insufficient. But majority of the schools did not have any problems.
8. The midday meal programme has its impact on the children. Because of the programme the students attend the classes regularly. Majority of them are good in studies. And their habits of eating also has improved.
9. There seems to be no proper method of evaluation of the students who take mid day meals. Only in 7 schools, height and weight were taken to evaluate the impact of the programme.
10. The cost of midday meal per child ranges from 15 to 41 paise. The survey shows that, depending upon the efficiency with which the meal is prepared, the cost also differs.

11. The study reveals that majority of the parents are favourable towards the programme.
12. Even though there was no response from 21 schools regarding the suggestions, *for* improvements, the other schools suggested that they need variety in the food provided by the midday meals programme.

#### RECOMMENDATIONS:

From this analysis, the investigator gives the following recommendations.

1. Proper evaluation methods need to be evolved to analyse the impact of the programme on the children.
2. The government aid can be increased <sup>and</sup> any many schools can be asked to maintain kitchen garden so that variety in food can be provided.
3. Donations from other institutions can be invited to supplement the funds towards the programme.
4. Regular accounts of ingredients used and other costs should be maintained.
5. Proper administration and supervision will reduce the cost of meals.

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**APPENDICES**

A QUESTIONNAIRE TO STUDY THE ECONOMICS OF THE MID-DAY MEAL  
PROGRAMME

ADMINISTERED TO THE HEAD OF THE INSTITUTION

I. Name of the Interviewer :

Name of the Interviewee :

Name of the Institution :

Government  Private

Name of the Head of the Institution

II. Total Strength of the school.

Classes	No. of children enrolled	Average no. attending the school
1		
2		
3		
4		
5		



V. What is the menu generally prepared?

Days	Items
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

VI. Ingredients Used Per days

Items	Amount	Price
Cereals		
Cereal		
Substitutes		
Pulses		
Animal foods		
Milk and milk products		
Vegetables		
<i>Edible</i> Vegetable oil		
Other items		

VII.a. Are any of the ingredients obtained from the kitchen garden?

Yes  No

b. -----  
 Items Amounts Price  
 -----

-----

VIII.a. What is the contribution from the government for the provision of the midday meal programme?

Money  Kind

Specify the amounts:

b. Do you obtain funds from any other sources?

Yes  No

If yes, what is the source?

c. Is the aid in the form of (a) money

(b) kind

Specify the amounts:

**IX. Do you face any problems in getting aid from the Government?**

Yes

No

What are the problems?

**X. What is your opinion about the Lunch Programme?**

-----  
 Good      Satisfactory      Not Satisfactory  
 -----

Cooking

Serving

Adequacy

Hygienic

Nutrition  
 content

-----

**XI. What is <sup>the</sup> impact of the Programme on the children (From the point of view of the institution).**

- |   | Yes | No |
|---|-----|----|
| a. Regularity in attendance :           |     |    |
| b. Good in studies :                    |     |    |
| c. Improvements in the habits of eating |     |    |
| d. Others (specify) :                   |     |    |

XII. Do you have any measures of evaluating the benefits to children from the midday meal programme?

Yes

No

- a. Scaling
- b. Rating
- c. Taking height and weight monthly
- d. Any others (Specify)

XIII.a. Do you conduct parents teachers meetings regularly?

Yes  No 

b. What is the attitude of the parents towards the programme?

Favourable  Unfavourable 

XIV. What are your suggestions for the improvement of the programme?