Chapter Five
(Summary, Conclusion and Recommendations)

5.0 Introduction

In this chapter the researcher has presented summary of the study, drawn a conclusion of the study and recommendations are given.

5.1 Summary of the Study

Free and compulsory education to all children up to the age of fourteen years is the Constitutional commitment in India. At the time of adoption of the Constitution in 1950, the aim was to achieve the goal of Universalisation of Elementary Education (UEE) within the next ten years i.e. by 1960. Keeping in view, the educational facilities available in the country at that time, the goal was far too ambitious to achieve within a short span of ten years. Hence, the target date was shifted for a number of times. Till 1960, all efforts were focused on provision of schooling facilities. It was only after the near realization of the goal of access that other components of UEE, such as universal enrolment and retention, started receiving attention of planners and policy makers. It is the Quality of Education, which is at present in the focus in all programmes relating to elementary education in general and primary education in particular.

The objective of primary education is to build up a responsible personality capable at functioning as a useful citizen. The contribution of Education to development in all Socio-Economic spheres is very significant.

The actual Country wide Plan connected with National Programme of Nutritional Support to Primary Education was to help Primary Education and that is popularly referred to as the actual Mid-day Meal System was launched from the Indian government within 1995. NP-NSPE states so it aspires to treat “classroom hunger” and also really encourages bad children, owned by deprived sections, to wait college frequently and also helps them give full attention to college class pursuits. The actual mid-day meal programme can be a multi-faceted programme of the government of India in which, between other considerations, furthermore seeks to treat difficulties connected with food safety measures, not enough eating routine and also usage of education on a nationwide scale. The Scheme is the world’s largest school feeding
programme reaching out to about 12 crore children in over 12.65 lakh schools/EGS centres across the country.

On November 28, 2001 Supreme Court ordered directing all State Governments to introduce cooked mid-day meals in primary schools within six months. Once again most of the State Governments missed the deadline. Nevertheless, the coverage of Mid-day Meal programme has steadily expanded during last few years, and cooked lunches are rapidly becoming part of the daily school routine across the country (Dreze. J, Goyal. A – 2003).

The state Govt. of Tripura launched Mid-Day-Meal Scheme in the state w.e.f 1st March,1980 for children reading in classes I-V in Govt. and Govt. aided schools. Under the scheme, the school going children of primary stage were provided dried food like biscuit, chira, muri and locally available seasonal fruits for 200 days in a year. Subsequently, Govt. of India introduced Mid-Day-Meal programme under the scheme entitled “National Programme of Nutritional Support to Primary Education”(NP-NSPE) w.e.f. 15th August 1995 in the whole country as a centrally sponsored scheme. As per guideline of the scheme, each child from classes I-V having attendance in schools up to 80% was supplied 3 kg of rice per month. Government of India provided rice free of cost and Rs.50.00 per quintal as subsidy for transportation of food grains. Thereafter, in pursuance to the direction of the Hon’ble Supreme Court of India, the State Government began providing cooked meal (khichudi) to the eligible primary school children on all school day since 1st April 2003 under Mid-Day-Meal. The NP-NSPE Scheme was first revised in 2004 and again in 2006. Presently, Government of India is providing central assistance to all state Government @ 2.42 per child per school day in the Primary and @ 3.63 in the Upper Primary stage. Against the central assistance, the State contribution is ` 0.50 per child per school day both for the Primary and the Upper Primary stage. Mid-Day-Meal is run in 4564 Primary schools and 1946 Upper Primary schools. Till date, a total of 416608 children in the Primary stage and 201857 in the Upper Primary stage have opted for the Mid-Day meal in schools. Mid-day-Meal is also extended to all EGS & AIE centres established under SSA Scheme and also Madrassa/Muqtab institutions. The prime objective of this scheme is to enhance enrolment, retention and attendance and simultaneously improving nutritional levels among children(Government of Tripura, Education (School) Department, Mid-Day-Meal Section, 2011). Under the programme Rice & Vegetable curry twice in a week,
Rice & Egg curry twice in a week, Khichudi once in week and Payesh once in a week (Saturday) are provided.

Many studies were conducted on non-enrolment, stagnation, achievement and dropout but very few were available on the Mid-day Meal programme in the state of Tripura. The study assumes relevance and significance in the context of mid day meal presently provided in various districts of Tripura. Government is encouraging education and fighting classroom hunger in primary levels by these programmes. It has also been found that only very few studies have been done in this important area nationally, and so it is a burning issue in the area of primary education. Therefore, the Researcher has taken up this study on this problem.

5.1.1 Objectives of the Study

1. To study the infrastructure, which is an essential component for implementing the scheme.
2. To assess the quality of mid-day meal in Schools.
3. To study daily attendance of students in primary schools after the introduction of midday meal.
4. To study the school efficiency before and after implementation of midday meal scheme.
5. To study the effect of midday meal on social development of students in primary schools.
6. To find out the role of community and Panchayet to implement the scheme.
7. To identify the problems in the implementation of the scheme and to suggest measures to overcome them.

5.1.2 Methodology

It is survey type research study. West Tripura District is the population of the study. 20 schools were selected for the study. The research tools used for this study are:-

1. Interview schedule on Physical facilities in the school.
2. Interview schedule for teachers, community/Panchayet and cook/helper.
3. Student’s merit and attendance register

Tools 1 and 2 have been prepared by the researcher and finalized on the basis of results of the pilot study and opinion of experts.
The investigator has visited the schools and gave the Interview schedule to the teachers after taking permission from the administration. Clean instructions were given to the primary school Headmasters and doubts would be clarified. Students’ attendance register of each class were collected. Daily attendance of the students was counted from the students attendance register. Their merit register was taken into consideration. Then the investigator has taken interview of community and Panchayet members to enquire about the success of midday meal.

5.2 Conclusion
The infrastructure of the schools which is very essential for implementation of MDM is studied by the researcher. It is found that all the schools have school buildings and are made of concrete (ref. Table 4). Five schools have six classrooms; two schools have seven classrooms, eight schools have eight classrooms, three schools have nine classrooms and two schools have ten classrooms. Among these in eleven schools twenty five class rooms are made of tin roof and concrete wall (less than 200 sq ft). In seventeen schools sixty seven class rooms are made of tin roof and concrete wall (200-300 sq ft). In sixteen schools fifty seven class rooms are made of tin roof and concrete wall (300-400 sq ft). In three schools three class rooms are made of tin roof and concrete wall (more 400 sq ft). In one school where three class rooms are there made of concrete roof concrete wall (300-400) sq ft.

The researcher found that in the sample schools (Ref. table 2) the maximum Pupil Teacher ratio (PTR) is 24:1 and the minimum is 5:1. Overall PTR in the sample schools is 13:1. As per the District Information System for Education (DISE), 2011-12, the PTR at primary and upper primary level are 31:1 and 29:1, respectively. According to Right of Children to Free and Compulsory Education (RTE) Act, 2009, prescribes a Pupil Teacher Ratio (PTR) of 40:1 and 35:1 at primary and upper primary level, respectively in every school. So, the researcher found that the Pupil Teacher Ratio (PTR) is better in sample schools in comparison to schools in other parts in India (DISE data 2011-12).

All the 20 schools researcher has visited have toilets in healthy condition and have separate toilet for boys and girls and for male and female teachers. According to Analytical Report 2014-15 by NUEPA on Elementary Education in Rural India, the percentage (99.82) of availability of Girls toilet in primary schools of Tripura is better
than national percentage (86.13). Same is in the case of boys, percentage of Tripura (99.95) is better than national percentage (95.05).

The researcher has visited 20 schools where the main source of water Govt. pipeline or tap water. For drinking water in five schools Govt. pipeline water is filtered and used otherwise in 15 schools students directly use the pipeline water for their drinking purpose. For teachers in all 20 schools Govt. pipeline water is filtered and used for drinking purpose. For cooking and washing utensils Govt. pipeline water is used directly in all the 20 schools. According to Analytical Report 2014-15 by NUEPA drinking water facility is present in 88.25 percent primary schools of Tripura.

In the entire 20 schools kitchen shed is there for cooking purpose. The place of cooking is also neat and clean. According to the Analytical Report 2014-15 by NUEPA on Elementary Education in Rural India 88.71% primary schools have kitchen sheds whereas the national average is 77.82%. Dekchi, kadai, thala, hata, is sufficient for cooking mid day meal in 20 schools the researcher visited. Only glass for drinking water for students is not sufficient in 18 schools out of 20 schools. Dry bamboo is used as fuel for cooking. As bamboo is a common fuel in the rural areas in Tripura. No school is using cooking gas for cooking mid day meal. According to headmasters cooking gas is expensive and the supply of gas cylinder is not very regular by the vendors in the rural area. That is why most of the schools prefer bamboo as cooking fuel which is easily found in the locality.

Only 4 (Four) Schools have separate place for distribution of mid day meal. In the rest of 15 (fifteen) schools food is distributed in the Veranda.

The primary data was collected from the Government school students, Government teachers/In charges of Mid Day Meal scheme. Discussions were also held with the cooks in the school. Personal observation and interview schedule with the school teachers/ In charges of Mid Day Meal scheme and students were used to collect data regarding Mid Day Meal scheme. The information drawn was also verified through personal observation employing observation technique. To find out the quality of the mid day meal the researcher has taken valuable information from Dietician.

According to Headmasters and Cooks of the twenty schools the researcher visited, in all the 20(twenty) schools mid day meal is provided regularly according to Govt. rules. Mid day meal menu is displayed by making permanent board in the schools. The board is kept outside of the room of Headmaster so that it can be seen by everybody.
The school teachers/In charges responsible for Mid Day Meal are keeping a daily register of mid day meal. According to Headmaster/Headmistress and cook in all 20 schools no one has complained about the quality and quantity of raw food. According to them of rice, dal, milk and vegetables are good and quantity is sufficient. Only money to purchase the egg provided by the Govt. is not sufficient, otherwise quality of egg is good.

About the hygiene of the food the researcher found that the food after preparation kept covered in the separate cooking shed in the schools. Prepared food kept covered properly in the separate cooking shed in the schools. Cooking Utensils are washed everyday with Govt. pipeline water in all the schools. The cooking place is also neat and clean.

The sensory evaluation of the food was done by the researcher to assess the quality of the food i.e. quality of food was assessed in terms of appearance, taste, and smell in the present study. Researcher has observed that in schools, the colour of the Khichdi being served was yellowish looked like properly boiled. Rice was also looked like nicely boiled and well made. The curry was not looked like too oily or spicy. Vegetables were properly chopped and cleaned. Researcher enquired about the taste of the food to the students of the sample schools. The students reported the researcher that the meal is tasty and they enjoy the food. There is no report in any school for last five years that any students refused to take food because of the bad taste. The researcher has also tasted the food and found it satisfactory. The payesh is also found tasty. No complaint of bad smell in the mid day meal was reported to the researcher by the students of the sample school schools. The researcher found the smell of the food is good and never found any sort stinking smell in the food. Before serving to the students the teacher in charge for midday meal tastes the food and then allows the food to serve students. If any parent any day wants to taste the food to confirm about the quality of the meal, s/he is allowed to do so. The researcher found the same practice in the each and every school, he has visited. No incident of any child has fallen ill after consuming the mid-day meal during the last five years in the twenty schools the researcher has visited. There is no such complain from the community or Panchyjet members or from the side of the students.

According to dietician consulted by the researcher, 6years child need 1350 kcal/day, 7-9 years child needs 1690 kcal/day and 10years child need 2100 kcal/day on an average. In 20 schools the researcher visited found students of 6-10years age group
from standard I to V. On an average the schools are providing Aprox. 490 kcal/meal/day. If we multiply by 3 times as we take food 3 times a day then it will become aprox. 1470 kcal/day. It is enough for class I (6 years of age) students but not enough for class II-IV (7-9 years of age) and class V (10 years of age) students. According to him at least 564 kcal/meal should be given to students up to class IV and 700 kcal/meal should be provided to Class V students to get at least one time calorie requirement in a day.

The regression analysis is carried out to find the causal relationship between attendance and existence of mid day meal. More precisely the method is applied to show how introduction of mid day meal affects the level of student attendance in schools. The proportion of good attendance is significantly affected by the introduction of midday meal (Ref. table 4.10). The proportion of good attendance is increased when mid day meal is introduced as compared to when it was not been in existence. Furthermore the introduction of mid day meal explains 55% of the total variation in the proportion of good attendance (Ref. table 4.10).

The researcher found that that if good attendance is considered as dependent variable than month has a significant impact on good attendance of the students (Ref. table 4.14.1). The researcher compared the good attendance of month of January 2011(Admission month) with other months of 2011(Ref. table 4.14.2), it is seen that good attendance is significantly low only in the month of April 2011. The researcher found that seasonal impact decreases in 2011 as compared to 2001. So from this data analysis, we may say that after the implementation of mid day meal, the effect of season on the good attendance has diminished significantly.

The researcher has done case studies on three different schools to know whether the attendance status in a particular day is reduced in the periods of different classes after the mid day meal distributed in the school. This case studies were done to observe whether there is any difference in the attendance of before and after periods of mid day meal distribution. The researcher did not find any difference in the attendance of before and after periods of mid day meal distribution.

Cohort analysis was done by the researcher to know the School efficiency before and after the implementation of the mid day meal. Phase –I (Before Implementation of MDM) and Phase-II (After Implementation of MDM) wise cohort analysis was done. The inputs per graduate in phase I, Phase II were 5.19 and 5.04 years respectively (Ref. Table 4.16) but ideally it should be 5 years. It is also seen here that input years
were decreased which is definitely a positive sign of improvement after implementation of mid day meal.

The input-output ratio for the first *phase and second phase* were 95.45% and 99.03% respectively (Ref. Table 4.15). It indicates that there was an improvement in input-output ratio in Phase II after the implementation of Midday meal.

The wastage in years in phase I and phase II were 3.6%, 0.79% respectively (Ref. Table 4.17). It is clear that the input years have been decreased after the implementation of Midday meal.

Wastage ratio is a ratio between actual input output ratio and ideal output ratio and ideal input output ratio where actual input output ratio is actual input per graduate in years divided by ideal input. Ideal input output ratio is an ideal output divided by ideal input. The wastage rations in phase I and phase II were 1.038 and 1.008 respectively (Ref. Table 4.18). Ideally it should be 1.00, but it clearly indicates that there is a sharp declination in wastage ratios after the implementation of Midday meal.

The wastage in student years is 26 in Phase I and 09 in phase II. So wastage has decreased after the implementation of Midday meal (Ref. Table 4.19).

The researcher visited twenty schools where nine cooks are schedule caste, three cooks are Schedule tribe, one cook is Muslim and seven others are from general community. Their caste and religion have not effected the mid day meal in any way. No student or their parents has never raised any voice against the mid day meal preparation by the SC, ST or religious minority in the school. So upper or lower caste or may be students from religious minority take food prepared by SC, ST and religious minority cook.

The researcher found that in 3896 students of 20 sample schools, 1097 students are schedule caste, 623 students are Schedule tribe, 1063 students are from OBC, 191students are Muslim and 922 are from general community. The students from different castes and religion take food sitting together. Sometimes they share their food also with each other. There was never any problem because caste or religion. All the students of different community take food together happily.

In twenty schools, the researcher met with twenty community and Panchayet members who are directly associated with school. Among them fourteen are panchayet members and six are members of school management committee. According to them most (85%) of them visit the school frequently and inspect mid day meal preparation and distribution. All the VEC members are adequately informed about their roles and
responsibilities in MDM Scheme. Their participation in activities to ensure quality formal education and MDM in the villages is adequate. The members admitted to having received no formal training, before being made members of VEC. VEC and Panchayet members don’t organize meetings together on a regular basis. The members are not involved in budget tracking and they are not aware of annual funds granted to MDM scheme. Across schools, the level of inspection and participation in mid day meal scheme of members varies. It has also been observed during the personal interviews that the literate members of the VEC and Panchayet are usually more informed and involved mid day meal. The researcher realised that there is a need to build the capacity of VEC and Panchayet members around their entitlements and responsibilities in MDM scheme. Such a capacity-building program must aim to educate the members about important role of VEC and Panchayet members in MDM scheme.

In all of the twenty schools visited by the researcher, the community members and members of school management committee inspect the midday meal for quality assurance.

Problems in implementation of MDM scheme and measures to overcome them.

While researcher enquired about problems of implementation of scheme, the headmasters and the teachers identified some specific problems they facing when implementing the scheme. The main two problems identified by them are:-

- Price rise.
- Irregular funding

Other problems identified by them are:-

- Teachers have to devote lots of time to keep accounts updated.
- SHG group don’t use proper amount of vegetables to prepare curry.
- Too much of paper work.
- Less man power to control midday meal.
- Every time teachers have to go to Chairman for his signature in register.

According to the school officials, they got the food grains from FCI depot directly. Most of the time the food grains provided was of good quality. According to the officials they purchased Dal, Vegetables and other ingredients from local market.
Further when asked about the menu provided, they opined that menu was prescribed by the MDM authority at state level. According to the officials the work of MDM scheme has been distributed in four categories (i) procurement of raw material required to prepare the meal (ii) cooking the meal (iii) distributing the meal and (iv) maintaining various records.

Further, when they were asked about the problem faced in running the MDM scheme they opined that they faced some problems which hinder the smooth functioning of the MDM Scheme. According to them, the cooking cost provided by government was not sufficient to make all the arrangement such as procuring cereals, vegetables oils, condiments, sugar, salt, fuel etc. Further, they have to pay the transportation cost of the food grains distributed to schools. The transportation cost got increased day by day and it was difficult to manage it in limited finance. Further, many times because of hot humid climate chances of food deteriorations were there. In addition to this the food was not handled with proper care in schools which might be the reason the food became unhygienic. If in any school, unhygienic food served, actions would be taken against people involved with MDM Scheme. According to the officials the cooking cost per child should be increased which would help them in providing nutritious food to the school children.

5.3 Recommendations

On the basis of the findings of the study the following recommendations may be suggested:-

Community participation is essential to make the scheme healthy. This will help on many issues like replacement of vessels, amt and sort out problem of safe drinking water; make appeal for gas connection, healthcare of the children, maintenance of healthy environment in the school premises, supply of food on social occasions, etc. including boosting enrolment of the children.

To save further degradation of forest or vegetations, all the Mid-Day Meal Schools need to connect with solar cooking system. The State Council for Science and Technology and Pollution Control Board of Tripura with Department of School education can take-up this project to solarise kitchens of schools preparing mid day meal using dry bamboo. Even supply of gas is not in time, so as an alternative system should be developed.
This scheme could be run through the self-help group run by the women who are efficient in maintaining of the accounts. Such women are now available as well educated women are easily available in villages of Tripura.
The essential commodities such as edible oil, salt, gas etc. should be supplied along with food grains to the schools. This process saves transportation cost and manpower. Local food habits should be given importance while preparing the menu. The different tribes of Tripura have their own food habit.
Effective inspection technique should be developed to maintain the transparency in the scheme.
Because of price rise the allotted money for MDM should be increased as necessary. Allotted money for MDM should be released by the Dept. in time so that the school should provide MDM without any difficulty.
The Scheme could be a platform for strengthening the school health programme in order to produce a real impact. Since the Supreme Court says that the onus to monitor the implementation of the scheme essentially lies with the Central government, as it is the Central government that is providing assistance, it is important that leakages from the MDM scheme should be stopped at all cost and proper monitoring should be there. Comprehensive, periodical and systematic orientation is mandatory to sensitize all stakeholders including the policy makers, implementers, teachers, centre level officials and community people to make them understand this scheme well. This would help them to become more efficient and be active partners in the programme that will certainly enhance its performance.