



सत्यमेव जयते

Government of India

Ministry of Human Resource Development

Department of School Education & Literacy



मध्याह्न भोजन योजना  
Mid Day Meal Scheme

Report of 5<sup>th</sup> Joint Review Mission on  
Mid Day Meal Scheme

**MAHARASHTRA**

(30<sup>th</sup> September to 9<sup>th</sup> October, 2013)



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मध्याह्न भोजन योजना  
Mid Day Meal Scheme

## **ACKNOWLEDGEMENT**

The Joint Review Mission Team for the Fifth Review Mission – Maharashtra 2013-14 would like to thank the Government of Maharashtra for the support rendered in facilitating the Team to undertake the Review successfully.

The members of the Mission acknowledge and value the support and hospitality extended by the Additional Chief Secretary, Department of Education & Sports, Government of Maharashtra; District Collectors of Buldana and Ahmednagar; Chief Executive Officers, Zilla Parishad of Buldana and Ahmednagar; all officials of the Department of Education & Sports; the cook-cum-helpers working in the MDM kitchens; the Department of Health; and SMC members of the villages and most importantly the students and Parents of the visited schools.

The team has had an earnest effort to include in the report the wide range of observations and discussions held at various levels with key officials and other stakeholders. It sincerely hopes that the recommendations that have emerged through this multi-pronged exercise would help the Government of Maharashtra in strengthening the implementation of the Nutritious Meal Programme in schools and ensure that every school going child avails its right to nutritious food in the State.

**The JRM Team**

**October 09, 2013**

**Mumbai**

## FOREWORD

The 5<sup>th</sup> Joint Review Mission, Maharashtra has been a very comprehensive, satisfying and fruitful experience for the JRM Team. We place on record the appreciation for the dedicated efforts of Government of Maharashtra in the implementation of the scheme effectively. We appreciate the involvement of Nutrition team in the mission by the Ministry of Human Resource Development Government of India .Health and Nutrition are inter- related and any effort or programme in the direction to improve the nutritional and health status of school going children can be successful only when it is a team work of all stakeholders with concerted nutritional inputs.

The implementation of the mid day meal was keenly evaluated by Joint Review Mission by keeping in mind the terms of reference and key parameters for the effective implementation.

The Nutrition team also kept the terms of References of assessment of nutritional status of school going children , presence of nutritional deficiencies, nutritional adequacy of diets and adequacy of mid day meal, besides assessing the sensory evaluation of mid day meal preparations being served. Additionally information was also captured with regards to the satisfaction of children and parents with the mid day meal scheme and the significance of this scheme in the child's diet.

The team has summarized recommendations which are feasible and practical with a bigger objective to accrue maximum benefit out of the resources and efforts mobilized for the scheme.The team reiterates that besides nutritional adequacy mid day meal should serve as an effective tool for nutrition education to child, teacher and parents . The team has suggested one liner messages with each suggested recipe and a template to be adopted for taking this objective further.

I thank the entire JRM team for their hard work and committed effort in collecting the relevant details interactions in field and compilation of this report .I am sure the recommendations which emerge out of this report will be taken further to strengthen the mid day meal programme in the state of Maharashtra.

God Bless !

Dr Jagmeet Madan,

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# PART A



**IMPLEMENTATION  
OF MID DAY MEAL SCHEME IN  
(BULDANA AND AHMEDNAGAR)  
MAHARASHTRA**

मध्याह्न भोजन योजना  
Mid Day Meal Scheme



## INTRODUCTION

Malnutrition was widely prevalent in India among growing children. Nutritional deficiencies and their incidences among children of school-going age group cannot be neglected. Malnutrition not only gives rise to morbidity and mortality, but also prevents a child from developing into a fully functional adult. It adversely affects education in the following ways:

- i) A malnourished child is less likely to attend school regularly.
- ii) Even if such a child does attend school, he/she finds it difficult to concentrate on and participate in teaching-learning activities well enough. He/She therefore, tends to drop out, inter alia, because of the inability to cope up with.
- iii) Even if the child does not actually drop out, his attainment levels tend to be low.

Programme of providing Mid-Day Meal in Schools is designed to help Universalisation of Elementary Education in the following ways:

- i) By improving enrolment and regularity of attendance.
- ii) By reducing drop-out and
- iii) By improving children's level of learning and self-esteem.

National Programme of Nutritional Support to Primary Education (commonly known as the Mid-Day Meal Scheme) was launched as a Centrally-Sponsored Scheme on 15th August, 1995. Its objective was to boost Universalization of Primary Education' by increasing enrolment, retention and attendance and simultaneously impacting on nutrition of students in primary classes.

It is being implemented in Maharashtra since 1995-96 onwards. However, the nature of scheme was changed in the right decision of Hon. Supreme Court in Writ Petition No. 196/2001, wherein instead of dry rice the cooked meal was to be given to children on all school days. In 2002, the scheme was implemented in 15 tribal districts of Maharashtra, however, the scope of implementation was extended to all districts of Maharashtra in January 2003. The scheme implemented for children in Std I to V in Government schools, schools run by local bodies, Government aided private schools and students enrolled in Education Guarantee Scheme Centre

i.e, Vastishalas and Alternative and Innovative Education Centres i.e. Mahatma Phule Education Guarantee Scheme Centres.

As per Government of India Guidelines, Mid-day Meal Scheme is extended by Govt. of Maharashtra to cover children in upper primary (VI-VIII) classes in 43 educationally backward blocks in 10 districts of Maharashtra state from

1st January 2008. Now this scheme is being implemented all over Maharashtra state from Sep 08 and onwards.

### 1. **Constitution of Review Mission and its objectives**

A programme of scale and magnitude of Mid Day Meal requires close monitoring and evaluation at all levels. MHRD has constituted the 5<sup>th</sup> Joint Review Mission with the following composition :-

Composition of Joint Review Mission

1. Dr. Jagmeet Madan, Principal, Professor, Department of Food and Nutrition, SVT College of Home Science, SNDT Women's University, Mumbai Maharashtra.
2. Shri B D Shivani, Deputy Secretary, Ministry of Human Resource Development – Member
3. Director, Directorate of Primary Education/ representative of Govt. of Maharashtra – Member
4. Dr. Meena Godhia; Associate Professor, Department of Food and Nutrition, SVT College of Home Science, SNDT Women's University Mumbai.- Member
5. Dr Rekha Battalwar, Associate Professor of Food and Nutrition, College of Home Science, Department of Food and Nutrition, SVT College of Home Science, SNDT Women's University Mumbai.-Member
6. Dr. Ashish Satav representative of Office of Supreme Court Commissioner – Member
7. Shri K.K. Sharma Consultant MDM, Ed CIL (India) Limited, MHRD, Delhi
8. Dr. Mridula Sircar Consultant MDM, Ed CIL (India) Limited, MHRD, Delhi
9. Mrs Neha Tembe, Research Assistants, SVT College of Home Science, SNDT Women's University ,Mumbai Maharashtra

10. Ms Poonam Shah , Research Assistants, SVT College of Home Science, SNDT Women's University, Mumbai Maharashtra
11. Mrs Ruby Sound, Research Assistants, SVT College of Home Science, SNDT Women's University, Mumbai Maharashtra
12. Ms Princee Kalra, Research Assistants, SVT College of Home Science, SNDT Women's University, Mumbai Maharashtra

The Terms of Reference (ToR) of the Joint Review Mission are as under:-

- (i) To review the performance of the Scheme in the selected State in the light of the Guidelines of the Mid Day Meal Scheme.
- (ii) To suggest policy measures for effective implementation of the Scheme in the State.

This Joint Review Mission visited Maharashtra from 30th September, 2013 to 9<sup>th</sup> October, 2013 to review the Implementation of Mid Day meal scheme in the State by keeping in view the following Terms of Reference (ToRs):

- i) Review the system of fund flow from State Government to Schools/cooking agency and the time taken in this process.
- ii) Review the management and monitoring of the scheme from State to School level.
- iii) Review the implementation of the scheme with reference to availability of food grains, quality of MDM, regularity in serving MDM as per approved norms and mode of cooking.
- iv) Role of Teachers,
- v) Convergence with School Health Programme (SHP) for supplementation of micronutrients and health checkups and supply of spectacles to children suffering from refractive errors.
- vi) Creation of capital assets through kitchen-cum-store/kitchen devices
- vii) Appointment of Cook-cum-Helpers for preparation and serving of meal to the children
- viii) Availability of dedicated staff for MDM at various levels



- ix) Review the maintenance of records at the level of school/cooking agency.
- x) Review the availability of infrastructure, its adequacy and source of funding.
- xi) Review of payment of cost of foodgrains to FCI by the districts
- xii) Review the involvement of NGOs/Trust/Centralized kitchens by States/UTs
- xiii) Government in implementation of the Scheme.
- xiv) Management Information System (MIS) from school to block, district and
- xv) State Level to collect the information and disseminate it to other stakeholders
- xvi) Assess the involvement of Community' in implementation of MDM scheme and give suggestions for improvement in the implementation of the programme.
- xvii) Review of the status of tasting of the meal by at least one teacher.
- xviii) Review of status of Safe storage and proper supply of ingredients to schools.
- xix) Review of the status of Awareness about Mid- Day Meal Scheme.
- xx) Review of status of convening of Monitoring Committee under the Chairmanship of Member of Parliament.
- xxi) Review of the convening of regular review meetings at District level.
- xxii) Review of the status of testing of food samples by reputed institute.
- xxiii) Review of the status of Emergency Medical Plan; and.
- xxiv) Suggestions for improvement in the implementation of the programme.

ToRs for the Assessment of Nutritional Status of children:

- i) To assess the anthropometric measurements of a sample of children availing MDM: Height, Weight, Mid arm Circumference.
- ii) To Calculate the Body Mass Index (BMI) on the basis of measurement of Height and weight.
- iii) To identify the children who are undernourished and over nourished.
- iv) To assess the nutritive value of the served MDM on the day of visit by 24 hour food recall method.
- v) To review the quality and quantity of the served MDM.
- vi) To review the satisfaction of the children parents and community on the served meal under MDM in respect of quality and quantity.
- vii) To suggest some nutritionally balance region specific recipes.
- viii) To assess the ways for better convergence with School Health Programme.

## Introduction: State – MAHARASHTRA



### Brief History of Maharashtra

Maharashtra, located on the west coast of India, is the second largest state in terms of population and the third largest in terms of area.

**Maharashtra** state was shaped in a new form on 1<sup>st</sup> May, 1960 based on Marathi language. However **Maharashtra** is more known to us as an Industrial centre. Household articles of every sort and variety are being produced in greater *Mumbai* and its adjoining areas. *Mumbai* is called the Hollywood of the east for its famous film industry. It was in Pune in **Maharashtra** that the Indians gathered and formed Indian National Congress i.e. Congress was born. Maharashtra's income is derived more from the secondary and tertiary sectors.

The rural economy is not diversified, though the mineral base is abundant-coal, manganese, iron ore and tin being some of the important minerals. Mumbai, Maharashtra's capital city is the principal financial centre and a major commercial hub of the country.

The main feature of the Industrial and commercial city *Mumbai* is its gorgeous and dazzling skyscrapers and developed by land-fillings the coastal line of the Arabian Sea. *Mumbai* has been awarded the best city of India. The foremost attraction of is the Gateway of India, the entrance to India for those who land in India from abroad by sea. Marine is also quite renowned in *Mumbai*. The panoramic view of this spectacular beach from where one can enjoy the enthralling dawn and dusk. On the time of sunset the sky turns golden with a patch of red on the horizon and the silver sands reflects the last rays of the sun, which form a delightful ambiance in this island.

We find large numbers of inhabitants in **Maharashtra** from all over the India. Not only Marathi but also Hindi, English and Gujarati are spoken by the people in **Maharashtra**. Rate of literacy in **Maharashtra** is 77%. The service sectors including films, business, tourism, public administration, banking and finance, transportation, and communication dominate the economy of Maharashtra and main sources of the earning livelihood of the citizens of Maharashtra.

#### Facts About Maharashtra

Capital	Mumbai
Number of Districts	35
Population	112,372,972 (Census 2011)
Area	307,713 sq km (118,809 sq miles)

#### Total Schools in the State:

Primary School (Govt.+LB+G.A./Madarsa/Maqtab)	:	47257
Upper Primary (Govt.+LB+G.A./Madarsa/Maqtab)	:	37631
NCLP	:	143
<b>Total</b>	:	<b>85031</b>

The Physical and Financial Progress made in implementation of the Programme in the State during 2010-11, 2011-12 & 2012-13 is as under:-

## Physical

### I. COVERAGE STATUS

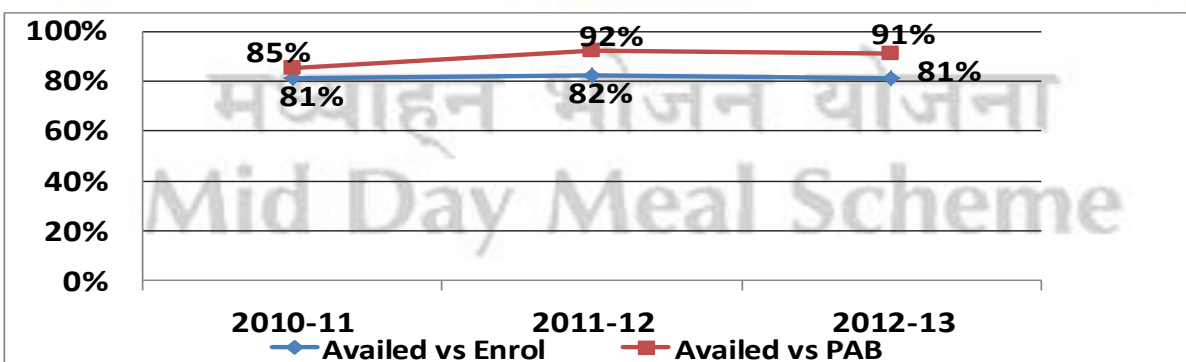
#### 1. Coverage of Schools

S.no	Stage	2010-11		2011-12		2012-13	
		Approval	Coverage	Approval	Coverage	Approval*	coverage
1	Primary	84016	81116	81488	81665	47400	47358
2	Upp. Primary	38822	39236	39472	39679	37631	37422
	Total	122838	120352 (98%)	120960	121344 (100%)	85031	84780(100%)

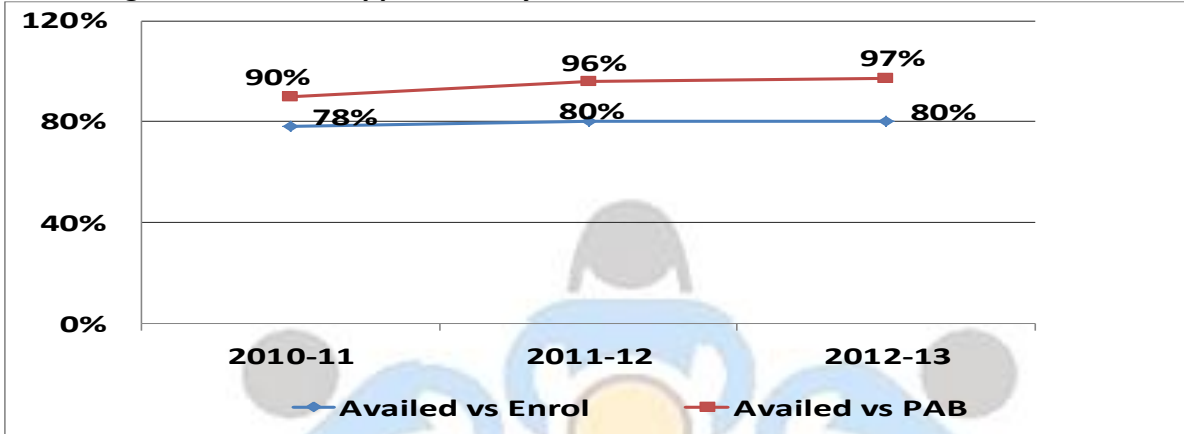
The state informed MHRD during PAB-MDM that in 2012-13 by mistake there was double counting of Primary schools and Upper Primary schools with the result 81915 primary institutions and 39906 upper primary were approved by PAB 2012-13. The actual no. of primary schools in the State are 47400 and 37631 upper primary schools which has also been verified by the MIS portal. Against this 47358 primary institutions and 37422 upper primary institutions have covered under MDM which is 100% during 2012-13.

#### 2. Coverage of Children & Working Days

##### Coverage of Children - Primary

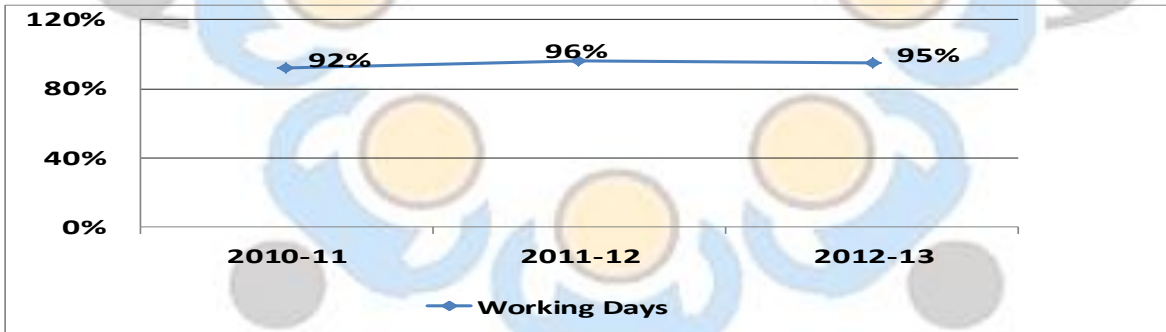


**Coverage of Children - Upper Primary**

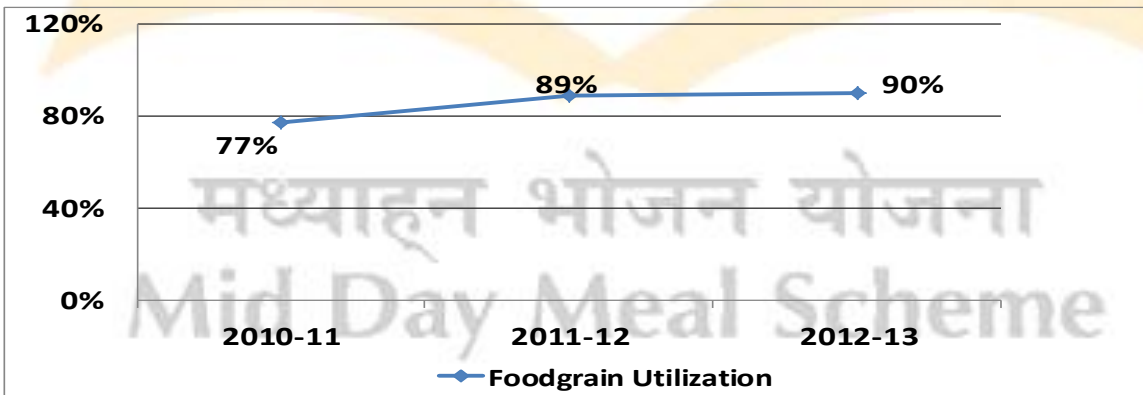


**percentage coverage of working days**

Approval 2012-13 : Primary : 225 Upper Primary: 225 NCLP 312

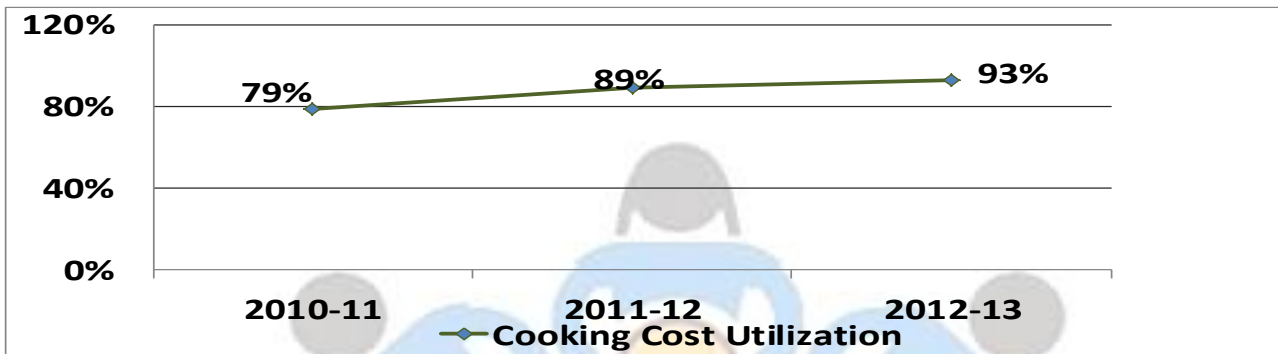


**Percentage food Grain utilization**

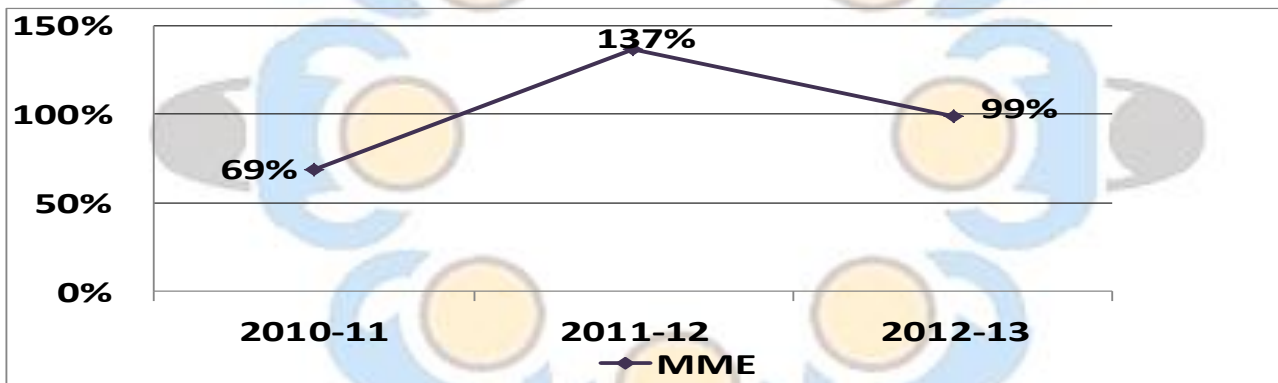




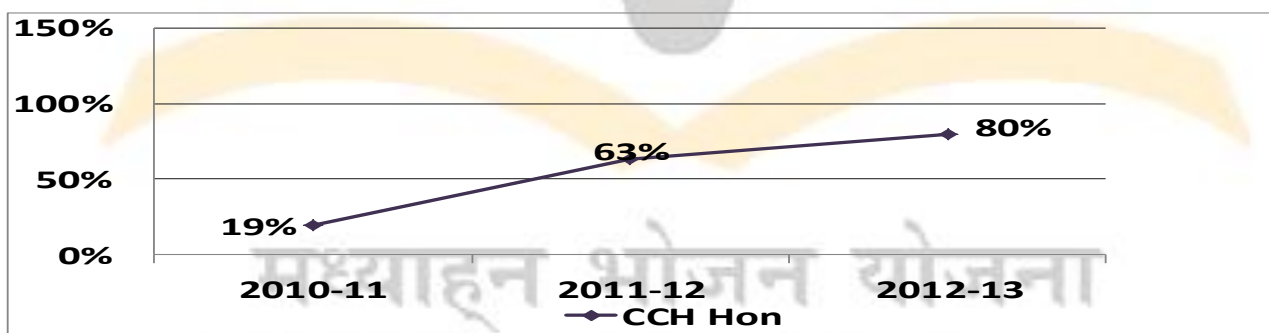
### Percentage cooking cost utilization



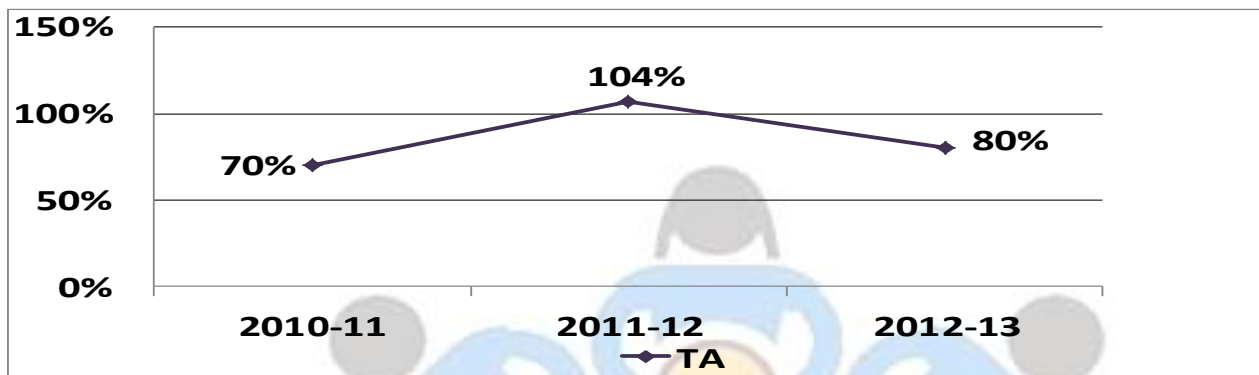
### Percentage MME utilization



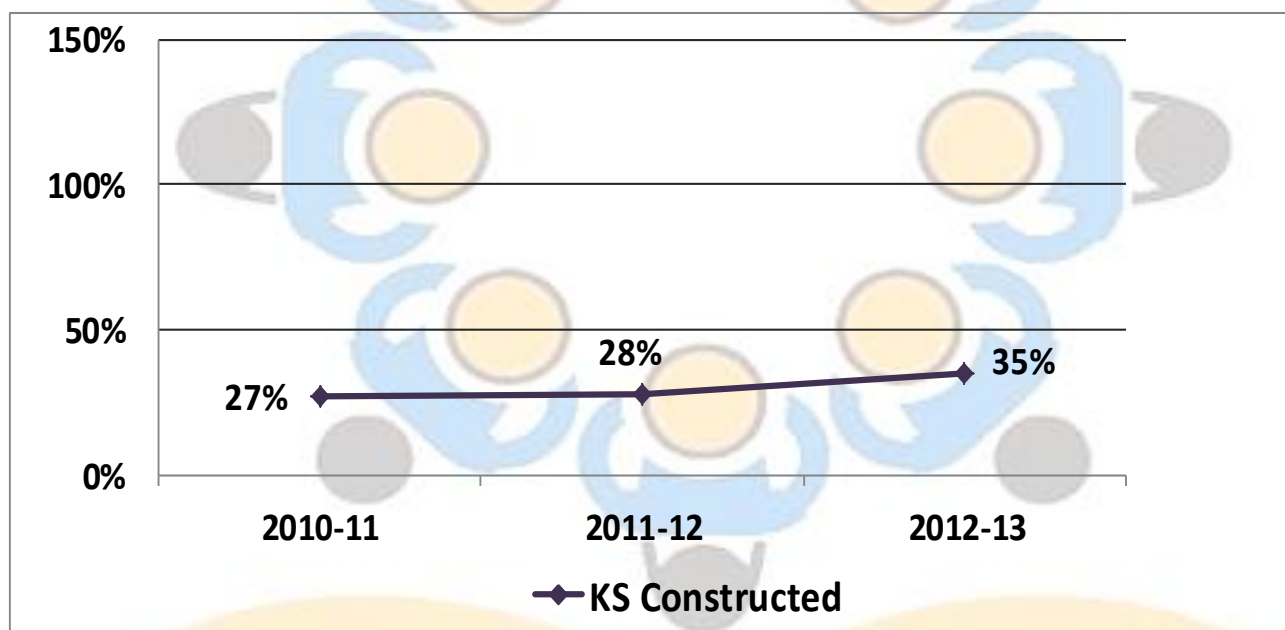
### Percentage utilization of Honorarium to Cook-cum-helpers



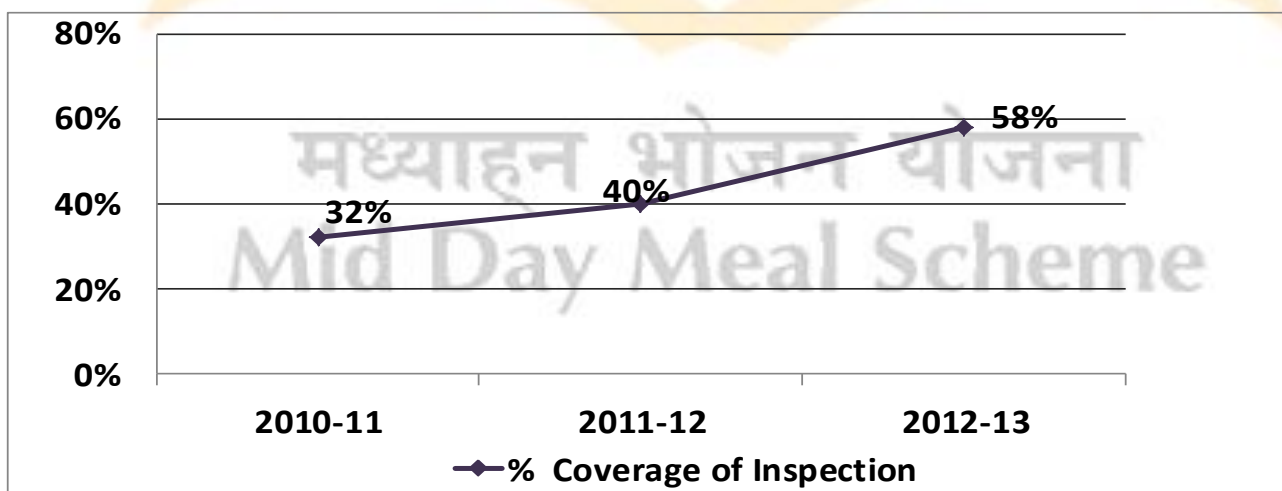
### Percentage utilization of TA



### Status of Construction of Kitchen-cum-store



### Inspections done



### 3. No. of Cook cum helpers engaged

S.no	Year	No. of CCH approved by MDM-PAB	Engaged	% engaged against Approval
1	2010-11	236626	236626	100%
2	2011-12	230184	230184	100%
3	2012-13	230184	230184	100%

### 4. Progress of Kitchen shed and kitchen Devices

	Sanctioned during 2006-07 to 2012-13	Physical Progress of Kitchen cum stores and Devices as on 30-09-2012					
		Constructed		In Progress		Not yet started	
		No .	%	No.	%	No.	%
Kitchen Devices	121343	118876	98%	402	0%	2065	2%
Kitchen Shed	65783	23104	35%	16487	25%	26192	40%

### Data Comparison of 1<sup>st</sup> QPR 2012-13 and 1<sup>st</sup> QPR 2013-14 against whole year approval and allocation

Component	2012-13(1 <sup>st</sup> QTR)				2013-14(1 <sup>st</sup> QTR)			
	Approval (2012-13)		Coverage		Approval (2013-14)		Coverage	
	Pry	Upry	Pry	Upry	Pry	Upry	Pry	Upry
Institutions	81915	39906	81417	39679	47400 (143 NCLP included)	37631	47359	37631
%			(99%)	(99%)			(100%)	(100%)

<b>Children</b>	7192900	4007100 (7100 NCLP included)	6659275	377003 6	6900000	4004068 (4068 NCLP included )	549619 8	292253 0
%			<b>(93%)</b>	<b>(94%)</b>			<b>(80%)</b>	<b>(73%)</b>
<b>Enrolment</b>	8132569	4849340	6659275	3770036	7693500	4690820	5496198	2922530
%			<b>(82%)</b>	<b>(78%)</b>			<b>(71%)</b>	<b>(62%)</b>
<b>W. Days</b>	225	225  NCLP 312	24	24	222	222  NCLP 312	33	35
	<b>Allocation (2012-13)</b>		<b>Utilization</b>		<b>Allocation (2013-14)</b>		<b>Utilization</b>	
	<b>Pry</b>	<b>Upry</b>	<b>Pry</b>	<b>Upry</b>	<b>Pry</b>	<b>Upry</b>	<b>Pry</b>	<b>Upry</b>
<b>Foodgrains</b>	161840.2 5	135332.28	15996	13551	153180	133390.38	18154	15318
%			<b>(10%)</b>	<b>(10%)</b>			<b>(12%)</b>	<b>(11%)</b>
<b>Lifted</b>			23586.0 0	16490.0 0			21962	15104
%			<b>(15%)</b>	<b>(12%)</b>			<b>(14%)</b>	<b>(11%)</b>
<b>Cost of FG</b>					8654.67	7525.80	0	0
<b>Cooking cost</b>	46771.83	41483.06	4335.00	3640.00	38038.3 2	32956.80	4230	3564
%			<b>(9%)</b>	<b>(9%)</b>			<b>(11%)</b>	<b>(11%)</b>
<b>TA</b>	2228.79		301.00		2149.28		278	

%			<b>(14%)</b>		<b>(13%)</b>
<b>MME</b>	1880.95		0	1919.63	1170
%			<b>(0%)</b>		<b>(61%)</b>
<b>CCH</b>	230184		230184	230184	230184
%			<b>(100%)</b>		<b>(100%)</b>
<b>Hon</b>	17263.80		3453.00	17263.80	1726
%			<b>(20%)</b>		<b>(10%)</b>
<b>Inspection</b>	121096		12607	85031	16195
%			<b>(10%)</b>		<b>(19%)</b>

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Mid Day Meal Scheme



## BULDHANA District



About

### Buldana District

**Region**

: Vidarbha

**Division**

: Amravati

**Head**

**Quarters**

: Buldhana

**Area:** 9640 sq. km

**Density :** 268/ sq. km

**Population**

: 2588039 (2011)

Sex Ratio : 928

Males

1342344

Females

1245695

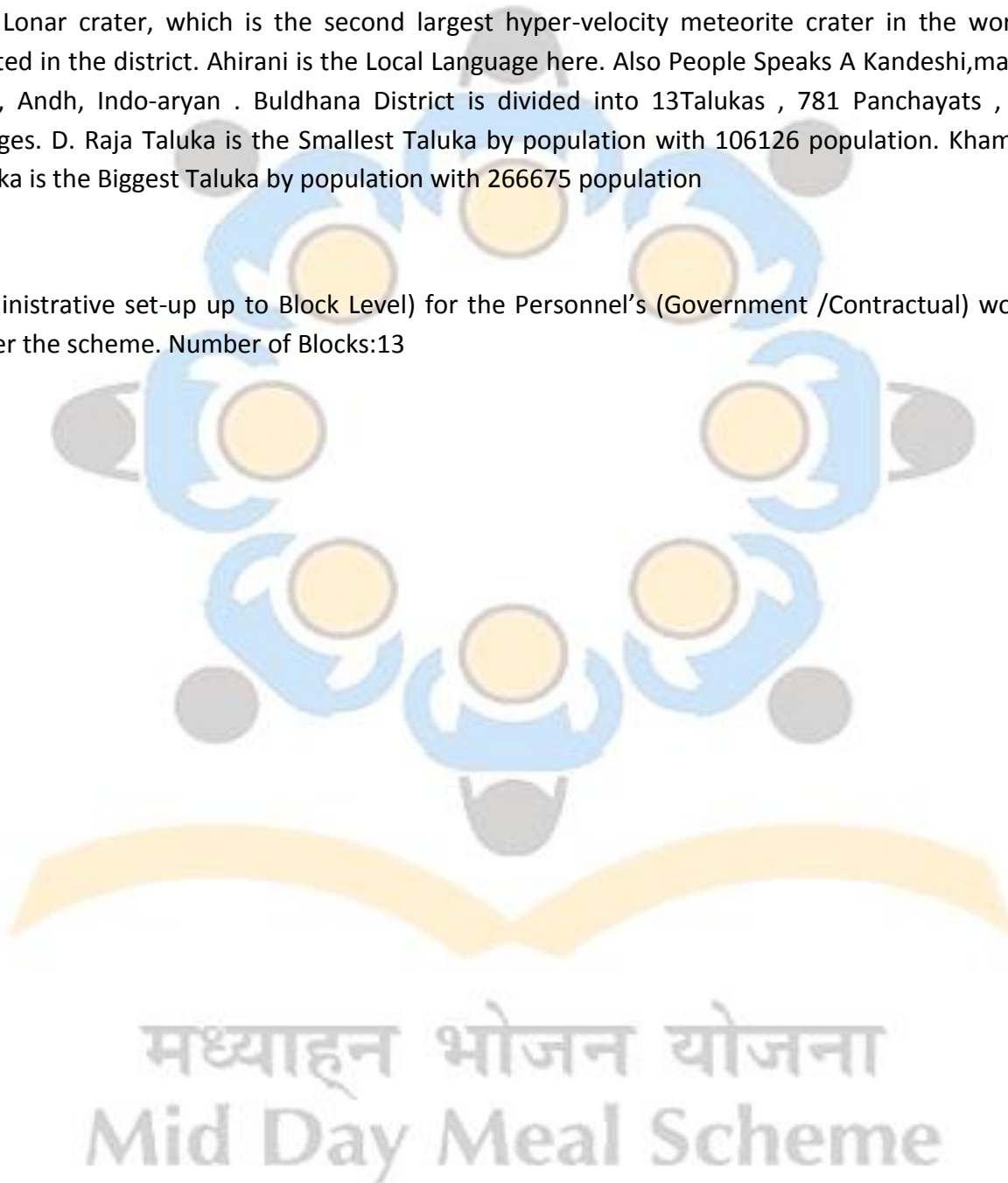
Literacy

: 82.09

Buldhana is a district in the state of Maharashtra in India. Situated in the Amravati division, the district is located around 500 Km from the capital city of Mumbai. The Tapti River and the Godavari River pass through the district.

The Lonar crater, which is the second largest hyper-velocity meteorite crater in the world, is located in the district. Ahirani is the Local Language here. Also People Speaks A Kandeshi, marathi, Bhili, Andh, Indo-aryan . Buldhana District is divided into 13 Talukas , 781 Panchayats , 1369 Villages. D. Raja Taluka is the Smallest Taluka by population with 106126 population. Khamgaon Taluka is the Biggest Taluka by population with 266675 population

Administrative set-up up to Block Level) for the Personnel's (Government /Contractual) working under the scheme. Number of Blocks:13



Name of the Post	No. of Posts Sanctioned	No. of posts Filled up	No. of posts lying vacant	Reasons for vacancy
<b>Government Staff at District and Block level</b>				
<b>District Level</b>				
Education Officer primary	1	1	0	District Level
Dy.Education Officer	2	2	0	District Level
Account Officer for MDM	1	0	1	District Level
<b>Block level</b>				
Block Education Officer	13	9	4	Block level
ADI	44	18	26	Block level
Cluster Head	131	118	13	Block level
Superintendent MDM	13	4	9	Block level
<b>Contractual Staff at District and Block level</b>				
<b>District level</b>				
Data Entry Operator for MDM	1	0	1	District Level
<b>Block level</b>				
Data Entry Operator for MDM	13	9	4	Block Level

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## 5. Coverage of Institutes, Children and Working Days

Stage	Institutes		Children			Working Days	
	Approved	Covered	Enrolment	Approved by PAB	Coverage	Approved	Covered
Pry	1864	1864	203103	186113	203103	225	200
U. Pry	966	966	132368	110127	132368	225	200
NCLP	-	-	-	-	-	-	-
Drought (Pry & U.pry)	-	-	-	-	-	-	-



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**-Financial Assistance received from the State (Tranche wise)**

**(Rs. In Thousand)**

Component	Opening balance	Funds recd. from State	Date of Receipt off funds	Funds Utilized	Balance Available
<b>Cost of Food grains</b>	0	0	0	0	0
<b>Cooking Cost</b>	State 1) 17864 2) Central 3400	State 1) 50176 2) Central 183801	1) 20/04/2012 2) 20/06/2012 3) 27/07/2012 4) 24/09/2012 5) 19/10/2012 6) 15/01/2013 7) 08/02/2013 8) 22/03/2013	State 1) 44963 Central 2) 183419	State 1) 5213 Central 2) 382
<b>Transport Assistance</b>	0	0	0	0	0
<b>Cook-cum-Helpers</b>	State 1) 10244 Central 2) 30730	State 1) 14493 Central 2) 43476	1) 20/06/2012 2) 27/07/2012 3) 18/10/2012 4) 08/02/2013	State 1) 10262 Central 2) 30785	State 1) 4231 Central 2) 12691
<b>MME</b>	159	1166	1) 27/07/2012 2) 08/02/2012 3) 14/03/2013	1127	39
<b>Kitchens-cum-stores</b>	0	0	0	0	0
<b>Kitchen Devices</b>	0	0	0	0	0
<b>Total</b>	63777	293112	0	270556	22556



## 7. Food grains Allocated &amp; Lifted

2013-14

(In Kt)

Quarter	Stage	Opening Balance	Allocation	Lifting	Utilization	Balance
First	Pry	2833.12	6140	6140	306.25	8666.87
	Upper Pry.	3543.85	5180	130.71	469.3	3205.26
Second	Pry	8666.87	13190	13190	9130	12726.87
	Upper Pry.	3205.26	11250	11250	9021	5434.26
Third	Pry	12726.87	10470	10470	16866.2	6330.67
	Upper Pry.	5434.26	8930	8930	16369.65	-2005.39
Fourth	Pry	6330.67	10790	7548.44	8630.61	5248.5
	Upper Pry.	-2005.39	10420	10420	8423.95	-9.34
Total	Pry	2833.12	40590	37348.4	34933.06	5248.5
	Upper Pry.	3543.85	35750	30730.7	34283.9	-9.34

## 8. Payment made to FCI for the Food grains Lifted

(In thousands)

Quarter	Food grains lifted during the month/ Quarter	Cumulative total of Food grains lifted	Bills received from FCI (Rs. In lakh)	Payment made to FCI so far	Balance Payment to be made to FCI	Reasons for non-payment
1 st (July, Aug)	0	0	37000.558	37000.558	0	0
2 nd (Sep, Oct)	0	0	32515.709	32515.709	0	0
3 rd (Nov, Dec)	0	0	29604.500	29604.500	0	0
4 th (Feb, Mar)	0	0	31324.521	31324.521	0	0

**ix) Cook-cum-Helpers (CCH)**

**Honorarium to Cook-Cum-Helper**

Cook-cum-helpers are the contract basis employees. They get honorarium for ten months in a year. Cook Cum Helper. Rs. 1000/- Per Month and max limit Ten Months in a year. Details are as follows.

**x)**

No. of children enrolled	No. of CCH for engagement	No. of CCH sanctioned by PAB	No. of CCH engaged by State	Whether engaged as per	
				MDM Guidelines	State's norms
471	4120	4120	0	MDM Guidelines	

\* State's norms may be indicated. The number of SC,ST,OBC and Minority CCH may be indicated separately gender wise.

Sr. No	Gender	Madatnis Sankhya					
		SC	ST	OBC	MINORITY	OTHERS	TOTAL
1	Male	145	45	612	348	312	1462
2	Female	313	48	1225	585	487	2658
Total		458	93	1837	933	799	4120

**9 (a) Honorarium paid to Cook-cum-Helpers**

Amount of Honorarium paid to each cook		Mode of Payment		
Central Share	State Share	Cash	Cheque	ECS transfer
30785	10262	-	-	ECS transfer

## 10. Kitchen-Cum-Stores

Total Institutes including EGS/AIE Centers	*Institutes eligible for Kitchen cum Stores	Kitchen-cum-Stores				
		Sanctioned	Constructed	Under Construction	Yet to be constructed	Reasons for non-construction
1949	1949	611	365	128	118	-
		700	400	71	229	

*\* Excluding EGS/AIE, NCLP schools, New Schools constructed after 2009 with SSA grant*

## 11. Kitchen Devices

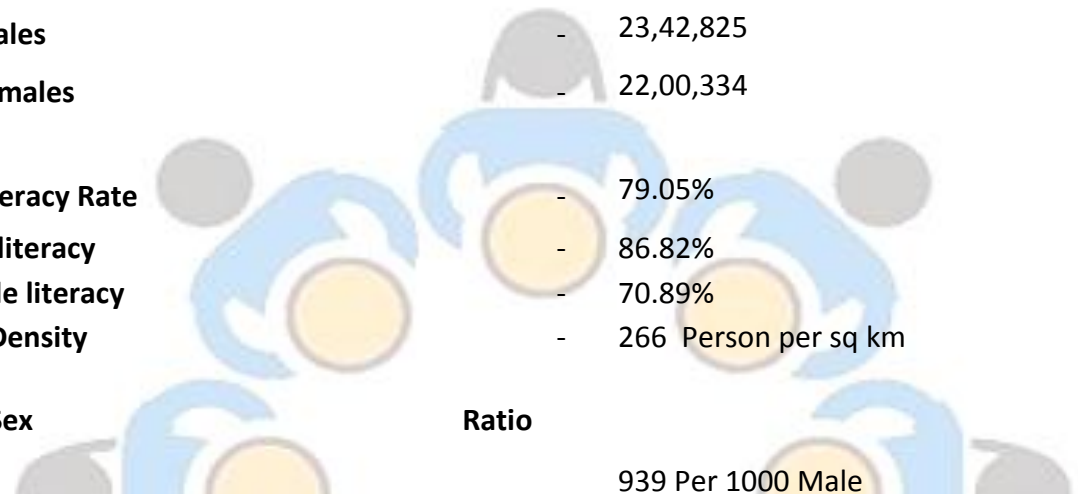
Number of Institutes eligible for Kitchen Devices	Kitchen devices				
	Sanctioned	Procured	Under Procurement	Not yet procured	Reasons for non-procurement
(1864+966) Student (335471) Plets	335471	107105		228366	Demand has been send to Director of Primary Education Pune

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Mid Day Meal Scheme

# Ahmednagar District



## Ahmednagar District (Maharashtra)



<b>Area</b>	-	17048 Sq.Km
<b>Population of the District (2011 Census)</b>	-	45,43,159 As Per Provisional Population 2011
<b>Males</b>	-	23,42,825
<b>Females</b>	-	22,00,334
<b>Literacy Rate</b>	-	79.05%
<b>Male literacy</b>	-	86.82%
<b>Female literacy</b>	-	70.89%
<b>Density</b>	-	266 Person per sq km
<b>Sex Ratio</b>	-	939 Per 1000 Male

### About Ahmednagar District

Ahmednagar District is one among 34 Districts of Maharashtra State ,India. Number of Blocks in the District -14It belongs to Khandesh and Northern Maharashtra Region . Ahmednagar District Administrative head quarter is Ahmednagar. It is is Located 231 KM west towards State capital Mumbai . Ahmednagar District is sharing border with Aurangabad District District to the North , Beed District to the East , Nashik District to the west , Pune District to the west , Solapur District to the South . Climate of Ahmednagar District. It is too Hot in summer. Ahmednagar District summer highest day temperature is in between 33 ° C to 41° C . Major producing Items,Crops,Industries and Exports from Ahmednagar District Cotton, Grapes, Grapes, Alcohol, Oil mile, Steel, Soap, Sugar, Sugarcane, Tobacco, WineGraps are the major producing Items and Exports from here.



Administrative set up up to Block Level) for the Personnel's (Government /Contractual) working under the scheme

Name of the Post	No. of Posts Sanctioned	No. of posts Filled up	No. of posts lying vacant	Reasons for vacancy
<b>Government Staff at District and Block level</b>				
<b>District level</b>				
Education Officer (Primary)	01	01	0	-
Account Officer	01	01	0	-
<b>Block level</b>				
Block Education Officer	14	09	05	State level decision
Superintendent	14	05	09	State level decision
<b>Contractual Staff at District and Block level</b>				
<b>District level</b>				
Data Entry Operator	01	0	01	Hon. High Court Stay
<b>Block level</b>				

5. Coverage of Institutes, Children and Working Days (April to June 2013)

Stage	Institutes		Children			Working Days	
	Approved	Covered	Enrolment	Approved by PAB	Coverage	Approved	Covered
Pry	4376	4398	358948	309554	156001	33	61
U. Pry	1293	1321	217425	175321	75699	33	61
NCLP	0	0	0	0	0	0	0
Drought (Pry & U.pry)	3269	3269	478714	0	98215	47	28

(August 2013)

Stage	Institutions		Children			Working Days	
	Approved	Covered	Enrolment	Approved by PAB	Coverage	Approved	Covered
Pry	4376	4394	358948	309554	263527	21	25
U. Pry	1293	1327	217425	175321	154067	21	25
NCLP	0	0	0	0	0	0	0

Pry							
U. Pry	1293	1327	217425	175321	154067	21	25
NCLP	0	0	0	0	0	0	0

#### 6. Financial Assistance received from the State (Tranche wise) ( April to Sept.2013 )

(Rs. In lakh)

Component	Opening balance	Funds recd. from State	Date of Receipt off funds	Funds Utilized	Balance Available
<b>Cost of Food grains</b>	State Level				
<b>Cooking Cost</b>	359	854	16.5.2013, 20.9.2013 24.9.2013	936	277
<b>Transport Assistance</b>	State Level				
<b>Cook-cum-Helpers</b>	799	404	20.9.2013	1203	0
<b>MME</b>	5	0	0	0	5
<b>Kitchens-cum-stores</b>	State Level				
<b>Kitchen Devices</b>	State Level				
<b>Total</b>	1163	1258		2139	282

## 7. Food grains Allocated &amp; Lifted

2013-14

(In MTs)

Quarter	Stage	Allocation	Lifting	Utilization	Balance
First	Pry	1065	1065	951.60	113.4
	Upper Pry.	974	974	692.65	281.35
Second	Pry	2012	Lifting of Rice is in progress, reports are yet to be received from FCI.		
	Upper Pry.	1357			
Third	Pry	Yet to be sanctioned			
	Upper Pry.				

## 8. Payment made to FCI for the Food grains Lifted

2013-14

Quarter	Food grains lifted during the month/ Quarter	Cumulative total of Food grains lifted	Bills received from FCI (Rs. In lakh)	Payment made to FCI so far	Balance Payment to be made to FCI	Reasons for non-payment
1st	2039	2039				
2nd	Lifting of Rice is in progress, reports are yet to be received from FCI		State Level			
3rd	Yet to be sanctioned		State Level			

## 1. Cook-cum-Helpers (CCH)

### Honorarium to Cook-Cum-Helper

Cook-cum-helpers are the contract basis employees. They get honorarium for ten months in a year .Cook Cum Helper Rs. 1000/- Per Month and max limit Ten Months in a year .Details are as follows.

### 2. Honorarium given to Cook-Cum Helpers in Rural area.

Sr.No.	No. of Beneficiary in school (Including 1 st to 8 th std.)	Grant for Cook Cum Helper (for 10 month in a year)
1	Up to 25 students	Rs.1000/-
2	26 to 199 students	Rs.2000/-
3	200 to 299 students	Rs.3000/-
4	300 to 399 students	Rs.4000/-
5	400 to 499 students	Rs.5000/-
6	500 to 599 students	Rs.6000/-
7	600 to 699 students	Rs.7000/-
8	700 to 799 students	Rs.8000/-
9	800 to 899 students	Rs.9000/-
10	More than 900 students	Rs.10000/-

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Mid Day Meal Scheme

Status of cook-cum-helpers in **Ahmednagar** District 2012-13

No. of children enrolled	No. of CCH eligible for engagement	No. of CCH sanctioned by PAB	No. of CCH engaged by State	Whether engaged as per	
				MDM Guidelines	State's norms
566373	9616	10111	9616	-	YES

\* State's norms may be indicated. The number of SC,ST,OBC and Minority CCH may be indicated separately gender wise.

GEN		SC		ST		OBC		Minority		Grand Total		
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
488	3565	211	1139	73	742	324	2497	107	470	1203	8413	9616

**9 (a) Honorarium paid to Cook-cum-Helpers**

Amount of Honorarium paid to each cook		Mode of Payment		
Central Share	State Share	Cash	Cheque	ECS transfer
<b>750</b>	<b>250</b>	-	YES	-

Mid Day Meal Scheme



## 10. Kitchen-Cum-Stores

Total Institutes including EGS/AIE Centers	*Institutes eligible for Kitchen cum Stores	Kitchen-cum-Stores				
		Sanctioned	Constructed	Under Construction	Yet to be constructed	Reasons for non-construction
5719	5719	2198	1915	-	283	Unavailability of Space / land at school level
SSA Grant		2091	1414	29	648	

*\* Excluding EGS/AIE, NCLP schools, New Schools constructed after 2009 with SSA grant*

## 11. Kitchen Devices

Number of Institutes eligible for Kitchen Devices	Kitchen devices				
	Sanctioned	Procured	Under Procurement	Not yet procured	Reasons for non-procurement
5719	3715	3715	0	2004	Yet to be received from state level

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Mid Day Meal Scheme

## **Briefing Session on 30<sup>th</sup> September, 2013**

Additional secretary Shri J. S. Saharia, Additional Chief Secretary, Department of Education & Sports, Government of Maharashtra briefed the Joint Review Mission Team on 30th September, 2013.

### **2. METHODOLOGY**

The JRM adopted a multi stage sampling design to collect information and data for the review. In the first stage two districts – Buldana and Ahmednagar were selected. District Buldana was selected by the Ministry of Human Resource Development (Department of School Education & Literacy) because of its poor performance while Ahmednagar district was selected by the Govt. of Maharashtra. The team visited a total of 43 schools comprising of 19 schools in Buldana and 24 schools in Ahmednagar district. The team adopted the primary method of interviewing the children, teachers, community members and other stakeholders. The secondary method was the MDM register, SMC meeting registers, school health cards and the records from the Civil Supplies.

In order to ensure maximum coverage of schools, the JRM members split themselves into two teams. The routes for visiting the schools were planned in consultation with the State and District Administration, keeping in mind the following points-

- Rural and remote schools to study the implementation of the scheme in village schools and far flung areas.
- Govt. Aided
- Urban Area Schools

#### **Review of the Documents**

The JRM team carried out a critical review of the documents pertaining to MDMS that had been provided by the State as well as the schools.

#### **Interaction with the Stakeholders**

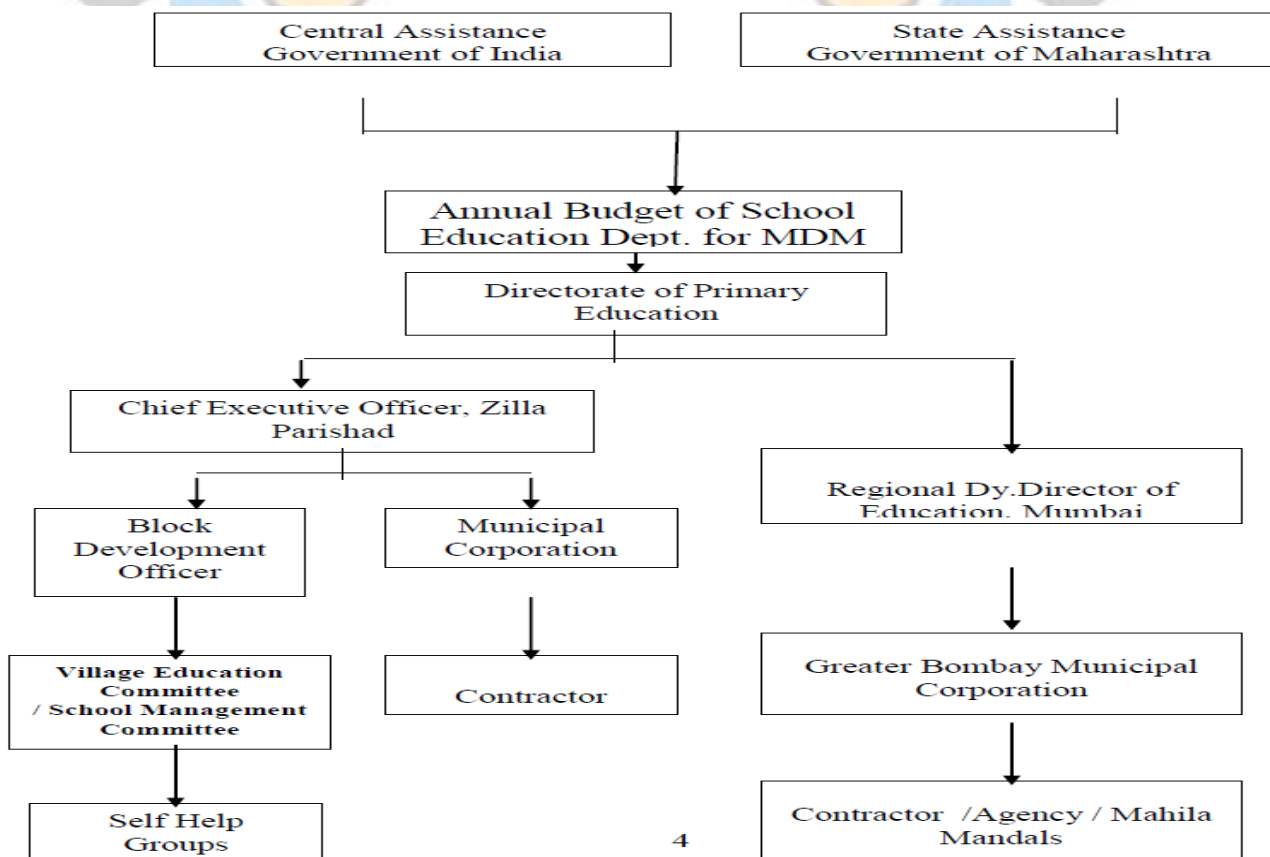
Record based enquiry methodology and interviews with stakeholders were undertaken to collect information on the performance of the scheme in the State. In-depth discussions were held with State, District, Block and School level functionaries to get information about the modalities being followed for implementation of the scheme in Buldana and Ahmednagar

### 3. Observations on MDM implementation

#### 3.1 Fund flow from State Government to Schools/cooking agency and the time taken in this process.

Government of India releases recurring central assistance to the State Governments/Union Territory Administration in two instalments (60:40). The ad-hoc release @ 25% is made without taking into account the unspent balance lying with the State Government at the beginning of financial year. The balance 35% funds of the first instalment is released after obtaining information on unspent balance as on 01.04.2013 from the State Government and adjusting it from the balance of first instalment.. The 2nd instalment @ 40% is released provided the State Government has utilised 60% of available (funds released under first instalment and the unspent balance from the previous year) and released its minimum mandatory contribution under the scheme for cooking cost and honorarium to cook-cum-helpers.

The following chart indicates the flow of funds from State Government to the schools through various intermediary levels:-



The above flow chart indicates that the funds flow through a circuitous route from State Finance Department to the implementing agency as a result of which unusually long delay takes place before these funds reach the implementing agencies.

i) Delay in release of central assistance by the State Government

The Review Mission observed that the State Government had released Rs. 4835.57 lakh on 10th April, 2013 (from its own budget because the ad-hoc recurring central assistance of Rs. 27141.45 lakh was released by Department of School Education & Literacy on 18th April, 2013).

The Department of Education and Sports, Government of Maharashtra received Rs. 25532.83 lakh on 6th September, 2013 from the above ad-hoc release. Thus the State Government has not only released less amount from the recurring central assistance but it has also delayed the above release by more than four months. The details of the releases made by the State Government against the total central assistance is given as under:

(Rs. in lakhs)

Type of Recurring Central Assistance	Funds released by MHRD	Date of release by MHRD	Recurring Central Assistance received by the State	Date of Receipt of funds by the State	Period of Delay upto State Level.
Ad-hoc release	27141.45	16th April, 2013	25532.83	06.09.2013	4.5 months
Balance of first instalment	17102.97	8th August, 2013	Yet to be received by the State Education Department		2 months
Total	44244.42		*25532.83		

\*The State Government released Rs.4835.87 lakh on 10th April, 2013 from its own resources to continue implementation of the Scheme till first tranche of central assistance is received. Thus the State Government has received Rs. 30368.40 lakh so far against the central release of Rs. 44244.42 lakh.

The Joint Review Mission observed that the State Finance Department has released Rs.30368.40 lakh only against the recurring central assistance of Rs.44244.42 lakhs released by MHRD under first instalment. ( Refer above table). Out of Rs.30368.40 lakh received by State Education Department, a sum of Rs.30237.14 lakh has been released to the Directorate of Primary Education.

The Review Mission also observed that the non-recurring central assistance of Rs.3226.95 lakh released on 25th July, 2013 for the replacement of kitchen devices during 2013-14, is yet to be received by the State Education & Sports Department from the State Finance Department.

The delay in the release of funds to the implementing agency affects the performance of the Scheme at the grass root level. Therefore, Joint Review Mission recommends that the State Government may devise a system that ensures that funds are made available in time to the implementing agencies or the State may adopt the "Andhra Pradesh's Green Channel Scheme" under which one months requirement of funds are made available in advance to the implementing agencies. The State Department of Education & Sports may also try to reduce the intermediary levels for releasing the funds directly to the implementing agencies under intimation to the concerned district and block authorities.

The Education & Sports Department of Government of Maharashtra may also take up the matter with State Finance Department for releasing the entire amount of recurring central assistance of Rs.44244.42 lakh under first instalment. The non-recurring central assistance of Rs. 3226.95 lakh for the procurement of serving plates may also be got released from the State Finance Department.

- ii) Non Revision of Cooking Cost Norms approved with effect from 01.07.2013

MHRD revised the norms for cooking cost as per details given below:

(Figures in Rs.)

Norms for Cooking cost with effect from 01.07.2012		Norms for Cooking cost with effect from 01.07.2013	
Primary	Upper Primary	Primary	Upper Primary
<b>3.11</b>	<b>4.65</b>	<b>3.34</b>	<b>5.00</b>



Whereas the recurring central assistance for cooking cost has been released as per revised norms during 2013-14, the State Government is releasing cooking cost @ Rs.3.02 and Rs. 4.47 per child per school day for the primary and upper primary students respectively. The State Government is retaining Rs.0.09 and Rs.0.18 from the cooking cost for primary and upper primary respectively for providing micronutrients syrup/ IFA tablets and protein powder to the children of these classes.

JRM recommends that the State should release cooking cost as per the revised norms applicable with effect from 01.07.2013 so that the children get mid day meal with required nutrition.

**3.2. Management and monitoring of the scheme from state to school level, clear roles and responsibilities of officials at all levels.**

The Mid Day Meal Scheme has prescribed a well established monitoring mechanism for Mid Day Meal Scheme at State, District and school level through the following Committees:

- i) State Level Steering-cum-Monitoring Committee (SLSMC) under the Chairpersonship of Chief Secretary
- ii) District Level Vigilance and Monitoring Committee (DVMC) under the Chairmanship of Member of Parliament (Senior-most Member of Parliament if where there are more than one Members of Parliament).
- iii) District Level Steering-cum-Monitoring Committee under the Chairmanship of District Collector.
- iv) Block Level Steering-cum-Monitoring Committee (BLSMC) under the Chairmanship of Sub-Division Officer (Civil)/ Block Development Officer.
- v) School Management Committee (SMC)

The Joint Review Mission observed that only one meeting of SLSMC has been held against the mandated two meetings till September, 2013.

MHRD has recently constituted DVMC under the Chairmanship of Member of Parliament for monitoring the scheme in each district. The first meeting of DVMC was to be convened before 31st July, 2013 and once in every month thereafter. But none of the two districts viz Ahmadnagar and Buldana have convened the above meetings so far. However, Buldana has convened four meetings of DLSMC and Ahmadnagar has not provided any information on this subject.

The BLSMC are held by Vice President of the Zila Parishad on monthly basis. District Education Officers also participate in these meetings. DEO also review the implementation of the scheme with their functionaries on monthly basis.

The School Management Committees constituted in all the schools, also monitor the scheme on day to day basis. Some Schools still have Village Education Committee (VEC) in addition to SMC.

The meetings of SMC are held regularly but the agenda and contents of these meetings need to be improved for suggesting ways and means to improve the implementation of the scheme.



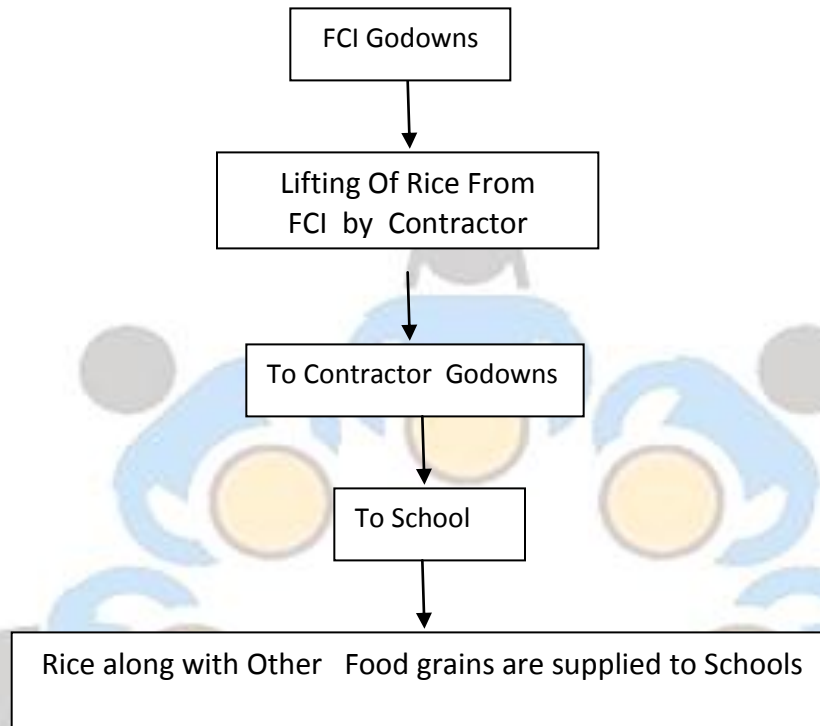
The Joint Review Mission observed that the members of the School Management Committee are not are not aware of their role and responsibilities but they are tasting the mid day meal. They need to be motivated for playing proactive role in the day to day monitoring of the scheme.

The schools are also inspected by the Extension Officers, Deputy Education Officers and Centre Heads of CRC and BRC. They had also signed the visitor register in the schools in token of their visit to the school.

### 3.3. **Implementation of the scheme with reference to availability of food grains, quality of MDM, regularity in serving MDM as per approved norms and mode of cooking**

- i) Supply chain Management for Food grains

The flow chart of Rice & Food Grains to Schools is give below:-



Note :-

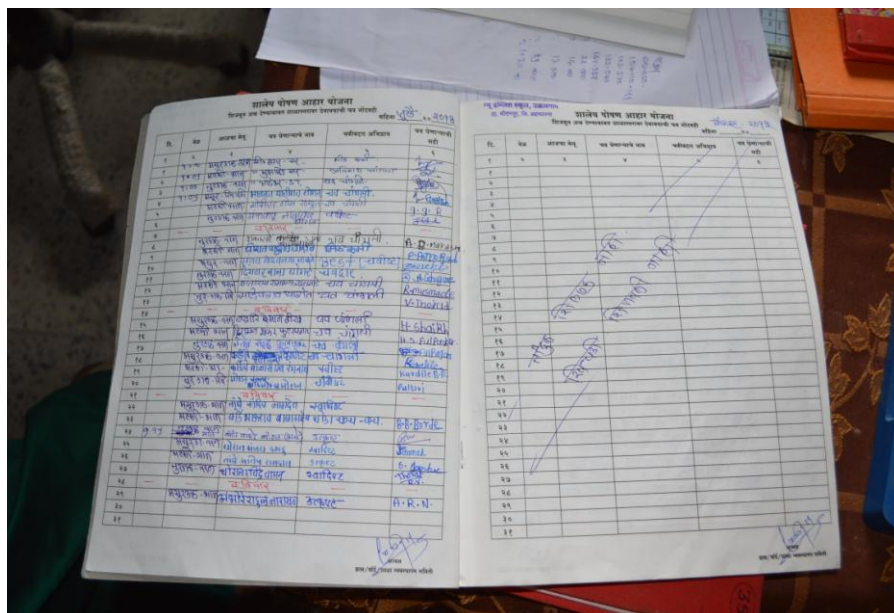
- i) Directorate ( State) release the Quarterly allocation to District Education office ( Prry).
- ii) E.O . ( Prry) Collect Demand Of Food Grains From Block As per Enrolment .
- iii) After Collecting Demand From Block ( of both Rice & Other Food grains), E. O. forwards demand to Contractor.
- iv) Contractor Lift rice from FCI Godowns Then Rice along with Other Food Grains Supplied to Schools as per their indent.

JRM observed that food grain is supplied in urban area up to school level by the Consumer Federation Limited, Government of Maharashtra. But in rural areas, the said Corporation supplies food grain along with other ingredients such as pulses, oils, condiments, salt etc. The indent for the food grain is placed with the Federation at least 20 days in advance of the actual requirement.

The Review Mission observed that most of the schools did not maintain "Buffer Stock" for one month at the time of opening of schools on 26th June, 2013 after summer vacations. The indent was placed with the Federation after opening of the schools in June, 2013. The Federation supplied the food grain to these schools within 10-20 days from the date of indent. Thus there was interruption in the implementing of the scheme during June, 2013, July, August and September in the schools. as indicated in Annexure-II This could have been avoided had the teacher purchased the food grain from the local market as a stop gap arrangement. But the



teachers did not purchase food grain from the open market or took it on loan basis from 'Other Welfare Schemes'(OWS) such as ICDS, TPDS etc.



JRM also observed poor implementation of the scheme in Drought Prone blocks. The teachers informed that the children did not turn up for mid day meal during the summer vacations. Therefore, there was poor implementation of the scheme in drought prone blocks during summer vacations.

In order to avoid the recurrence of such interruption in future, the State Department of Education & Sports may prescribe Standard Operating Procedure (SOP) for regulating the demand and supply of food grain.

ii) Quality of Food grains and other ingredients etc.

As per the MDM Guidelines, the Food Corporation of India is to provide food grain of 'Fair Average Quality' (FAQ) to the schools through its Fair Price Shops etc. The Review Mission observed that food grain (rice) available at the schools conformed to FAQ quality. But the quality of Pulses in ZP Primary School, Konkan Gaon, Karzat Block and ZP Primary School, Ruikhel, Sirgonda Block. in Ahmednagar, school was not of good quality. This was brought to the notice of District Collector, Buldana during the de-briefing meeting where he promised to get the pulses replaced with the good quality pulses.



The oil was made available to all the schools in 1 litre sealed plastic packets. These packets had a marking 'Best Before Use in six months from the date of packing'. The schools may follow the FIFO (First In and First Out) principle so that the old stock is utilised before the 'best before use' deadline.

All the schools had received oil packets within the prescribed 'best before use' limit except where few oil packets were found beyond the prescribed limit. This was brought to the notice of the Teacher and the Education Officer accompanying the JRM. They promised to get them replaced immediately. The Head Master of the school was also advised not to use the these oil packets.

Other ingredients such as iodised salt, condiments etc. were kept in sealed plastic packets. But the salt in 'Priyadarshini Self Help Group' in Loni, Rahata Block, Ahmednagar had solidified due to its storage in damp and moist atmosphere.

### iii) Gunny Bags Utilisation

The cost of food grains supplied by FCI is inclusive of the cost of gunny bags. The Review Mission observed that these gunny bags are sold by the schools particularly the Government-aided schools and the revenue earned by the sale of gunny bags is not ploughed back in to the scheme.

It may be pertinent to mention that Government of Punjab had collected the gunny bags from all he schools. These gunny bags were auctioned publicly and the sale proceeds were utilised by the State Government for procurement of kitchen devices for the students of the school.



RM recommends that the State Government may issue instructions to the schools to deposit these gunny bags with it so that they are auctioned collectively and the sale proceeds may be utilised for procurement of storage bins, LPG chullah or serving utensils etc.

iv) Food Norms in Buldana District

Education Officer, Zila Parishad, Buldana has revised the food norms for pulses and oil with effect from 20th September, 2013 vide letter dated 9th September, 2013. A comparative statement of approved food norms these items of MDM basket and the revised food norms for these items as followed w.e.f. 20.09.2013 in Buldana district is as under:

(Grams)

Item	Food Norms approved by MHRD		Food norms in Buldana district w.e.f. 20.09.2013	
	Primary	Upper Primary	Primary	Upper Primary
<b>Toordal</b>	<b>20</b>	<b>30</b>	<b>15</b>	<b>25</b>
<b>Masur</b>	<b>20</b>	<b>30</b>	<b>15</b>	<b>25</b>
<b>Matki</b>	<b>20</b>	<b>30</b>	<b>10</b>	<b>20</b>
<b>Oil</b>	<b>5</b>	<b>7.5</b>	<b>4</b>	<b>6</b>

Pulses are a rich source of protein. The reduction in their quantity would affect the protein contents mid day meal in Buldana. Similarly, oils is a rich source of energy and its reduction would reduce the energy contents in mid day meal.



Joint Review Mission recommends that the food norms for pulses and oils in Buldana district may be restored to the approved food norms.

### 3.4 **Role of Teachers,**

There is a widely held belief that provision of cooked meals disrupts class-room processes: that teachers spend too much time in supervising the cooking operations to the detriment of academic timetables.

The MDM guidelines categorically state that Teachers should under no circumstances be assigned responsibilities that will impede or interfere with teaching learning. The guidelines further state that Teachers should involved in ensuring following :-

- i) Good quality, wholesome food is served to children, and

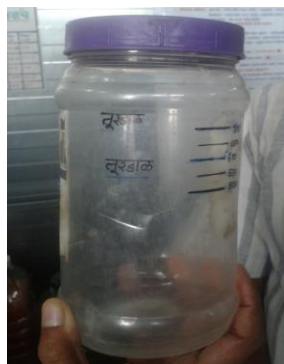


- ii) The actual serving and eating is undertaken in a spirit of togetherness, under hygienic conditions, and in an orderly manner so that the entire process is completed in 30-40 minutes.

Thus the Teacher is expected to play an important role in the supervision of Mid-Day Meal Scheme.

The Review Mission observed that the Teacher ensures the availability of food grains and other ingredients such as vegetables, pulses, oil/fats, salt, and condiments etc. for the preparation

and serving of mid day meal in the school. They also maintain necessary record for cooking cost, food grain, and other ingredients utilized under the scheme. Thus the teacher not only supervises the the mid day meal scheme but also ensure its smooth implementation.



The Review Mission enquired from the Principals/teachers whether mid-day meal scheme is affecting their teaching and learning activities. Most of them clarified that MDMS record is maintained by the teacher after completing their teaching and learning activities. The Head Masters further informed only those teachers who have comparatively less teaching hours are asked to supervise the MDMS. They purchase of ingredients is managed through Cook-cum-helpers or SMC members.

As per MDM guidelines, the teachers are also required to taste the mid day meal on rotation basis. The Joint Review Mission found that the teachers are tasting the mid day meal on rotation basis. Cook-cum-Helpers and members of School Management Committee also taste the food on daily basis. They are also signing the Taste register.

### **3.5. Convergence with School Health Programme (SHP) for supplementation of micronutrients and health checkups and supply of spectacles to children suffering from refractive errors.**

The medical check up and distribution of Iron Folic Acid, Vitamin A, De-worming tablets, Spectacles etc in the schools located in the urban areas is carried out by the Health Authorities in the Government Hospitals. But the School Health Programme in rural areas is carried out in convergence with the National Rural Health Mission.

The Review Mission observed that there was poor convergence with the Health Department in the implementation of School Health Programme (SHP). The schools are visited by the doctors once in a year. The Health Cards of the children were maintained in 98% of the visited schools. 50% of these cards had entries relating to measurement of weight and height during the medical check



up. But there was no mention about the medicines administered/given to the children during the check up. 25% of the SHCs indicated that de-worming tablets had been given to the children. Some SHC had 'NAD' entries in them. The spectacles are not being distributed under School Health Programme. Two or three children with refractive error had received spectacles through Sarva Shiksha Abhiyan funds.

The Government of Maharashtra is supplying Micronutrients syrup/IFA tablets and protein powder packets for all the elementary class children studying in the eligible schools under MDMS. This syrup is administered twice in a week @ 10 mls to each child. The protein powder is dissolved in water and given twice a week to the elementary class children. The cost for the micronutrients syrup and protein powder is taken out @ Rs.0.9 and Rs.0.18 from the cooking cost for primary and upper primary classes respectively.

The medical team of doctors and paramedical staff who accompanied the JRM team informed that the micronutrients syrup is excellent source of Iron as well as other micronutrients needed by the child. These micronutrients can also be derived from green leafy vegetables which are not being added in recommended quantity in the mid day meal because of the high cost of vegetables and their availability. They suggested that the supply of this syrup may be continued because it would provide all the essential nutrients and protein to the children in the school.

The Nutrition Team accompanying the JRM observed high prevalence of symptoms of anaemia and PEM (Protein & Energy Malnutrition) in the children in spite of the fact that the State is supplying micronutrients and protein to the children from MDM funds. JRM recommends that the matter may be taken up with the State Health Authorities for ensuring effective convergence with School Health Programme for reducing the prevalence of micronutrient deficiencies. Till such time, the State Health Authorities start providing micronutrients under SHP, the supply of micronutrient syrup may continue but its dose may be given thrice a week for the next three months. Then it may be reduced to twice a week. The protein powder may be given twice a week.





### 3.6. **Creation of Capital assets through kitchen-cum-store/kitchen devices**

#### i) Construction of Kitchen-cum-stores

MHRD started release of non-recurring central assistance for the construction of kitchen-cum-stores with effect from 2005-06 because classrooms are used for storage of food grains and cooking purposes, which is not only undesirable, but also fraught with risk. In the alternative, cooking is done in the open, which is unhygienic & hazardous.

The status of construction of kitchen-cum-stores at the State Level and both the visited districts ( Buldana and Ahmadabad) is given below:-

Level	No. of schools eligible for grant for construction of kitchen-cum-store	Number of kitchen-cum-stores sanctioned	Number of kitchen-cum-stores Constructed	Number of kitchen-cum-stores under construction	Number of kitchen-cum-stores yet to be constructed
State	85,031	65,783	31,095	4,850	29,838
Ahmad-nagar	5,719	2,198	1,915	-	283
Buldana	1,949	1,311	765	199	347



The State Government is yet to provide non-recurring central assistance for construction of kitchen-cum-store in 19,428 eligible schools. Most of them are the Government-aided schools. The State Government may take a policy decision on the modalities for sharing of funds between the Government aided Schools/State Government and Central Government and submit a proposal for the release of non-recurring central assistance to such schools.

Joint Review Mission observed that more than 200 pre-fabricated kitchen-cum-stores have been installed in the school premises in Ahmadnagar district. The pre-fabricated kitchen-cum-stores are not only economical (One unit cost Rs.74,900 only) but they are fire proof also. The pre-fabricated kitchen-cum-stores can be fixed within three days. Thus they save the construction time also which is usually long for the kitchen-cum-stores constructed through bricks, cement, mortars etc.

JRM recommends that the State Government may construct/install the remaining kitchen-cum-stores (29,838) in a time bound manner.



- ii) Procurement of Kitchen Devices for New Schools and replacement of Kitchen Devices procured during 2006-07 and 2007-08

As per the MDM guidelines, all eligible schools are entitled to receive non-recurring central assistance of Rs. 5,000/- for the procurement of kitchen devices. Similarly, the schools are also eligible to receive the above assistance @ Rs. 5,000/- for replacement of kitchen devices which were procured during 2006-07 and 2007-08.

MHRD has already released central assistance for the replacement of kitchen devices procured during 2006-07 and 2007-08 respectively. Non-recurring central assistance has been released for the procurement of 3,35,471 eating plates in 2830 schools in Buldana district. The district authorities has procured 1,07,105 eating plates.

Joint Review Mission observed that the State Government either does not provide eating plates to the Government aided schools or there is short supply of these plates to such schools on the plea that the school management is to arrange for serving plates for the MDM beneficiary children in these schools because the children in these schools bring their own eating plates from their homes.

Less number of eating plates were available in the some of the Government/Zila Parishad schools. The names of these schools have been given in Annexure-III The eating plates may also be procured for these schools out of the non-recurring central assistance of Rs.3226.95 lakh released during July, 2013.



### **3.7. Appointment of Cook-cum –Helpers for preparation and serving of meal to the children and their capacity building**

As per the MDM guidelines, one cook-cum-helper is to be engaged in schools having enrolment from 1-25 children; Two cooks-cum-helpers may be engaged for the schools having enrolment from 26-100 students. One additional cook-cum-helper may be engaged for every additional enrolment of 100 students in the schools. They are to be paid honorarium @ Rs.1,000/- per month and this amount is to be shared between the Central and State Governments in the ratio of 75:25 except for North Eastern States where this shaaring is to be done in the ratio of 90:10.

The State has enrolled 123.84 lakhs children in the elementary classes. The State can engage 2,30,184 cook-cum-helpers. The Programme Approval Board-Mid Day Meal has also approved engagement of 2,30,184 cook-cum-helpers under Mid Day Meal Scheme.

The State Government has prescribed its own norms for engaging cook-cum-helpers in urban and rural areas as per details given below:

Urban Area		Rural Area	
Enrolment	No. of cooks to be engaged	Enrolment	No. of cooks to be engaged
Till 500	2	Till 25	1
501-1000	4	26-199	2
1001-5000	6	200-299	3
5001-10000	8	300-399	4
Above 10000	10	400-499	5
		500-599	6
		600-699	7
		700-799	8
		800-899	9
		Above 900	10

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The honorarium is paid each cook-cum-helper per month for ten months as per details given below:

**Honorarium given to Cook-Cum Helpers in Rural area.**

Sr.No.	No. of Beneficiary in school (Including 1 st to 8 th std.)	Grant for Cook Cum Helper (for 10 month in a year)
1	Up to 25 students	Rs.1000/-
2	26 to 199 students	Rs.2000/-
3	200 to 299 students	Rs.3000/-
4	300 to 399 students	Rs.4000/-
5	400 to 499 students	Rs.5000/-
6	500 to 599 students	Rs.6000/-
7	600 to 699 students	Rs.7000/-
8	700 to 799 students	Rs.8000/-
9	800 to 899 students	Rs.9000/-
10	More than 900 students	Rs.10000/-

**Urban Area:-**

Sr.No.	No. of Beneficiaries receiving cooked food supply from NGO's and Women's Self Help group	Grant for Cook Cum Helper (for 10 month in a year)
1	Up to 500 students	Rs.2000/-
2	Up to 1000 students	Rs.4000/-
3	Up to 5000 students	Rs.6000/-
4	Up to 10000 students	Rs.8000/-
5	More than 10000 students	Rs.10000/-

The honorarium is share between the Central Government and the State Government in the ratio of 75:25.

The Review Mission observed that all the visited schools had engaged cook-cum-helpers for preparing and serving the mid-day-meal to the children in both the districts viz. Buldana and Ahmadnagar except ZP urdu UPS, Loni which is getting mid day meal from Priyadarshini Self Help Group.



The cook-cum-helpers have been paid honorarium up to March, 2013 through e-transfer of funds or cheque in their bank account. Thus there is a delay of more than five to six months in the payment of honorarium to cook-cum-helpers. Since the cook-cum-helpers come from economically weaker section of the society and belong to marginalised or disadvantaged segment of the society, the State should pay their honorarium on monthly basis.

### 3.8. Availability of dedicated staff for MDM at various levels.

#### Maharashtra Staff Information

Name Of Post	No. of Posts Sanctioned	No. of Posts Filled up	No. of Posts Vacant
<b>State Level</b>			
Additional Chief Secretary	1	1	0
Joint Secretary	1	1	0
Director of Education, Primary	1	1	0
Joint Director	1	1	0
Deputy Director	1	1	0
Under Secretary	1	1	0
Statistical Officer	1	1	0
Steno	1	1	0
Clerk	1	1	0
<b>Contractual Staff at State Level-</b>			
Data Entry Operator	6	3	3
<b>District Level-</b>			
Accounts Officer	33	18	15
<b>Contractual Staff at District Level-</b>			
Data Entry Operator	45	33	12
<b>Block Level-</b>			
Superintendent	295	128	167
<b>Contractual Staff at Block Level-</b>			
Data Entry Operator	352	191	161



The posts of Statistical Officer(1) Accounts Officers (33), Superintendents (295), Steno (1) and clerk (1) have been created exclusively for the Mid Day Meal Scheme. But 15 posts of Accounts Officers, 167 posts of Superintendents are lying vacant. The State has sanctioned only 295 posts of Superintendents against the requirement of 352 i.e one superintendent for each block and municipal corporation. Thus the vacancy against the sanctioned regular posts and contractual staff are affecting the implementation of the scheme.

The 3rd Review Mission that visited the State during 2011-12, had recommended the setting up of the administrative structure for MDMS in the State. It is understood that the proposal to this effect has been submitted to the Department of Education and Sports.

JRM recommends that immediate action may be taken for the setting up of administrative structure of MDMS as per the recommendations of 3rd JRM.

### **3.9. Maintenance of records at the level of school/cooking agency.**

The Record for the Mid Day Meal Scheme is maintained properly all the visited schools except one school (ZP Upper primary School, Rahuri) where the quantity of food grain entered in the stock register did not match with the receipt given by the Consumer Federation. Overwritings/cuttings in the Food grain register was noticed in almost all the visited schools.

The MDM record is not countersigned by the Cluster Head or Assistant Deputy Education Inspector (Extension Officer) who are supposed to inspect the implementation of the scheme and also inspect the record during his monthly visit. The Joint Review Mission was informed that the Cluster Head or ADEI give their observations in the Inspection format separately. This format is submitted to the Block level Superintendent of MDM and Block Education Officer for information and further necessary action under intimation to the District Education Officer (Primary)..

### **3.10 Availability of infrastructure, its adequacy and source of funding.**

All the visited schools in Buldana and Ahmednagar district had water connection either from the Municipality or Gram Panchayat except one school ZP UPS, Dhotre Nandre, Buldana The above school was drawing water from the well located adjacent to the cremation area. The quality of water of the well was not up to the mark. It was dirty and muddy water. The twigs and leaves from the plants had fallen in to the well.

The water of this well was being used to cook mid day meal and also for drinking purposes not only by the school but by the villagers also. JRM was informed that there is no water line from Gram Panchayat pipe-line in that village. This was brought to the notice of Chief Executive Officer, Zila Parishad and District Collector, Ahmednagar for necessary action.

Separate toilets for boys and girls were available in all the visited schools. However, water was available in only 50% of these toilets. They had become unusable due to their poor

hygienic condition and lack of sanitation. They were conspicuous by the stinking smell emanating from these toilets. The Head Masters of the schools were asked by the members of JRM about the poor cleanliness of these toilets. It was informed that there is no post of sweeper in any of the schools.

Joint Review Mission was informed that Gram Panchayats have engaged sweepers for cleanliness of the villages. The possibility of utilising the services of these sweepers for cleaning the toilets in the schools may be explored in consultation with the Ministry of Rural Development.

All the schools had Fire Extinguishers but they were not installed in the kitchen-cum-store where chances of fire hazard are maximum. They were lying either in Head Master's room, class rooms etc.



JRM advised the teachers to get them installed in the kitchen-cum-stores and also ensure that they are filled up regularly after expiry of the validity period of the of gas filled in these extinguishers

### **3.11. Payment of cost of food grains to FCI by the districts.**

The State Government has made payment of Rs. 2094.00 lakh to FCI against the 37066 MTs of food grains lifted from FCI during the first quarter of 2013-14. Bills for Rs.1050.00 have been submitted to Treasury for payment.

The State Government was informed that the Department of Food & Public Distribution has informed that the food grain would be supplied under mid day meal scheme against pre-payment with effect from 1st December, 2013 because huge amount of FCI bills are pending for payment by the State Government. FCI is taking credit from the market for undertaking

its commercial operations for the procurement and supply of food grains. It is paying interest on the money borrowed by it from the market.

The JRM recommends that the State Governments should make payment of FCI bills within a period of 20 days of their receipt (as stipulated in the MDM guidelines) so that Department of Education & Literacy, Government of India takes up the matter with FCI to maintain status quo and continue to supply the food grain under MDM on post payment basis.

### **3.12. Involvement of NGO's/Trust/Centralized kitchens by States/UTs Government in implementation of the Scheme**

The MDM Guidelines prescribes that Centralized Kitchens managed by NGOs, Trusts etc, may be engaged for preparing and serving mid day meal in a cluster of schools in urban area where there is constraint of space for construction of Kitchen-cum-store.

The Joint Review Mission visited the kitchen of some Self Help Groups in Ahmednagar viz. 'Priyadarshini', 'Shri Samarath' and 'Ahiliyabai Holkar'. The cooks in 'Shri Samarath' were wearing aprons, head gears etc at the time of preparing mid day meal. Dry fruits were also added in the Masala Bhat prepared for the school on the day of visit by JRM on 7th October, 2013. The members of JRM tasted the meal which was found to be very good. The JRM team also visited the Ahiliyabai Holkar SHG which is located nearby the ZP Primary School, Renuka Nagar in Ahmednagar block. The quality of meal prepared by this SHG was also found to be very good.

The Joint Review Mission visited the premises of "Priyadarshini Self Help Group" at Loni in Rahata Block of Ahmadnagar district on 6th October, 2013. The Manager of the SHG was not able to clarify the food norms or the quantity of vegetables to be added per child per day in the mid day meal. The cooked mid day meal is served by approximation method because the cook-cum-helpers, the Manager of the SHG etc. do not know as to how much 100 grams of raw rice, 50 grams of vegetables and 20 grams of pulses would swell up after cooking. The SHG may be serving less quantity of cooked mid day meal in proportion to the school.

The Principal of ZP UP Urdu School which is receiving the mid day meal from this SHG is also not aware of the quantity of cooked mid day meal that is to be received per child per day from the above SHG. She does not weigh the cooked mid day meal when it is delivered to the school.

The JRM team was not satisfied with the quality of pulses lying in the store of the above SHG. The salt had solidified because it had been kept under damp conditions.

The JRM recommends that the school based cooking may be started in ZP UP Urdu schools where pre-fabricated kitchen-cum-store has been installed very recently. The State



Government should monitor the quality and quantity of mid day meal supplied through the "Priyadarshini SHG". The teachers in-charge of Mid Day Meal in the schools which receive mid day meal from SHG or Centralised Kitchens, should be given orientation training on the cooked quantity of raw food grain. They may be advised to weigh the mid day meal before it is received from Self Help Groups or Centralised Kitchens so as to ensure that required quantity of cooked mid day meal has been delivered as per norms to the school.

### **3.13. Management Information System (MIS) from school to block, district and State Level to collect the information and dissemination to other stakeholders.**

The status of Monthly and Annual Data entries in the MIS is given in Annexure-VII, VIII, IX and X. It would be observed that the State has completed 32% annual data entries for 2013-14. The progress of monthly data entries ranges from 17, 16,14,12,9 and 4% from April to September, 2013 respectively.

As regards, district wise entries, the monthly entries in the MIS portal by Bandana is 1% during April, 2013 and no entries have been made thereafter. Ahmednagar has made 66%, 63%, 63%, 62%, 62% and 35% monthly entries during April to September, 2013 respectively.

### **3.14. Involvement of Community' in implementation of MDM Scheme**

Active Gram Panchayats, School Monitoring Committees and Parents Teachers Associations can play a very useful role in ensuring that mid day meals are provided in a fair and efficient manner. Community participation can help in many ways. Community members can formally monitor and report any irregularity to Gram Panchayat. Joint Review Mission came across notable examples of community participations among the two districts as below:

- In ZP Upper Primary School, Shirdhon, Malkapur, Buldhana community has donated solar lamps, water purifier and computer lab for students.
- In ZP Primary and Upper Primary School, Ruikhel, Shrigonda, Ahmednagar MDM is monitored by key persons in the village like Sarpanch (head of the village). He is actively involved in tasting of food and overall implementation on regular basis. Villagers have donated chairs and tables for students of class primary section. Local vegetable supplier supplies vegetables to school.
- ZP Primary School, Malwadi, Kopargaon, Ahmednagar has received donation in the form of fan, computer, school bell and Rs 10,000/- for construction of boundry wall.
- In ZP Primary School Panmala, Kopargaon, Ahmednagar a cook has donated one

computer for the children. Other computers are donated by local doctor. Parents have donated benches for school and Rotary Club has donated Sintex water tank.

- The community had donated dining table and chairs for mid day meal Scheme in Zila Parishad Primary School, Ruikhela in Srigonda block in Ahmednagar district.
- Shri Mohan Pawar, Head Master of ZP Primary School, Ruikhela has developed a software for food grain and pulses account. The software has been given in his cluster schools.
- The community in Ahmednagar has collected Rs.700.00 lakh and utilised it for providing computers, Projectors for e-learning in all Zila Parishad schools. This could be showcased as best practices in community participation for greater involvement.

The JRM recommends that the community should also be encouraged to monitor the scheme on day to day basis for bringing more transparency and accountability. The capacity building of the community may be build up to enable them to play more proactive role in the monitoring of the school

### **3.15. Status of tasting of the meal by the teacher/ member of SMC**

As per MDM guidelines, the teachers are also required to taste the mid day meal on rotation basis. The Joint Review Mission found that the teachers are tasting the mid day meal. Cook-cum-Helpers and members of School Management Committee also taste the food on daily basis. They also sign the Taste register maintained in the schools.

### **3.16. Status of Safe storage and proper supply of ingredients to schools.**

The food grain (Rice) was stored in the gunny bags kept in the school rooms. But separate containers were available in almost all the schools for storing the pulses, oils, salt, condiments etc. The food grain is liable to be affected by pest and rodents if it kept in the open. Therefore, storage bins may also be provided to the schools for food grain (rice).

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### 3.17. **Status of Awareness about Mid- Day Meal Scheme.**

The awareness of the scheme can be generated through display of Logo, Food norms etc at prominent places in the school. The observations of JRM during the field visits are given as under:

#### i) Display of Logo in the school

MDM Logo had not been displayed in 80% of the visited schools. Logo was available on a flexi chart in the remaining 20% of the visited schools in Buldana and Ahmadnagar districts. The State Government may advise the concerned authorities to ensure that the Logo is displayed prominently in the schools.



#### ii) Display of Menu and Food norms in the Schools

The weekly menu has been kept in all the visited schools but it is not displayed prominently in the school. The weekly menu is as under:

Day	Menu
Monday	Khichdi
Tuesday	Rice and Dal

Wednesday	Rice and Matki (Usal and Curry)
Thursday	Khichdi
Friday	Rice and Dal
Saturday	Rice and Matki

Note: Vegetable is also added in the Dal/Khichdi and Matki.

Biscuits, Kharig (dried Date), Chiki of groundnut or Rajigara, Rajigara Laddu and raw Groundnut is also given on Saturday as supplementary nutrition in addition to Rice and Matki.

The MDM Guidelines prescribe that the menu should be decided by the School Management Committee as per availability of local ingredients. But the menu has been decided by the District Level Committee under the Chairmanship of Chief Executive Officer, Zila Parishad. However, the SMCs have the flexibility to change the menu as per the choice of the students.

The children in Urdu schools expressed their desire to have egg under mid day meal. However, the children in other schools were reluctant to take egg. They preferred inclusion of seasonal fruit under mid day meal

### iii) Display of Information under Right to Information Act

As per Right to Information Act, important information of public interest should be displayed prominently to bring transparency and accountability in the scheme. The entitlement of food grain, vegetables, pulses etc. of the students should be displayed at prominent places in and outside the school. The schools should display the following information :

- (i) Quantity of food grains received, date of receipt
- (ii) Quantity of food grains utilized
- (iii) Other ingredients purchased & utilized
- (iv) Number of children given mid day meal
- (v) Daily Menu
- (vii) Roster of community members involved in the programme.

### 3.18. **Status of convening of District Monitoring and Vigilance Committee Meeting under the Chairmanship of Member of Parliament.**

Both the Deputy Collector in Bandana and Ahmednagar districts informed that Members of Parliament are taking meetings with the district authorities for reviewing the

implementation of all schemes in the district. But separate meeting for MDM have not been held under the Chairpersonship of Members of Parliament.

### **3.19. Review of the convening of regular review meetings at district level**

District Collector, Bandana has convened four meetings of District Level Review Committee for Mid Day Meal Scheme. District Collector, Ahmednagar also convene the above meetings on monthly basis for reviewing the implementation of all schemes in the district.

### **3.20. Status of testing of food samples by reputed institute.**

JRM observed that the school were keeping a sample of mid day meal in sealed jars for one day for testing by a reputed laboratory in case any untoward incident happens in the school. But they do not submit food samples for testing the nutrition content or the presence of e-coli etc. in mid day meal. Raw material supplied by contractor is get tested in laboratory before making payment

### **3.21. Status of operationalization of Emergency Medical Plan**

In the wake of recent incident in Bihar, the State Government has issued instructions that mid day meal food samples may be kept for one day for getting it tested in case any incident of food poisoning occurs in the school. The schools have been instructed to contact the nearest Primary Health Centre in case of emergency. JRM Team found that the telephone Numbers of PHC doctor, Ambulance, Police Station, Fire Station were found in the schools. Fire extinguisher have also been installed in the schools. Disaster management . Module has also been included in Teacher Training Programme

### **3.22. Suggestions for improvement in the implementation of the scheme**

The implementation of the scheme can further improve through following initiatives:

#### **i) Setting up of Grievance Redressal Mechanism**

Government of India issued guidelines in June 2010 for setting up of Grievances Redressal Mechanism under Mid Day Meal scheme. The guidelines envisage the installation of a Toll Free Telephone Number for enabling the public to registration their grievances.

The State Government has installed a toll free No. 1800-233-9988 but it was not displayed in any of the visited schools in both the district except one school in Ahmednagar district. The Teachers and SMC members are not aware of the above Toll Free Number. The State may give wide publicity to this number so that people are able to access it for registering their grievances. The complaints made on this Toll Free Number should be monitored regularly.

#### **ii) Capacity building and Training for MDM officials and SMC members.**

The State Government may chalk out a plan for the training of cook-cum-helpers in a phased manner. It would be advisable that a few Cook-cum-helpers may be trained through ITDC Hotels, Food Craft Institutes, Colleges of Home Sciences, Laboratories of Food & Nutrition Board etc. for the preparation of variety meals containing required quantity of nutrition. The Master Trainers can train the other CCHs.

iii) Training of the Personnel in Record Management

Most of the personnel handling food grain and other ingredients should be given training in the record management so that they are able to maintain necessary record properly without any over writing/cutting.

iv) Empowering the SMC members

SMC members are not playing an active role in the management of mid day meal. They should be empowered play a pivotal role in the day to day management and monitoring of the scheme

v) Social Audit of the Scheme for promoting Transparency and Accountability

Social audit is a monitoring tool in the was of the community for bringing transparency and accountability in the scheme. MHRD has selected Latur and Pune districts for undertaking Social Audit on pilot basis. The Social audit would enable the SMC members, Parents, Teachers, public in general to play an active role in the monitoring of MDMS on daily basis.

vi) Use of LPG for cooking:

LPG is used in 40% of the visited schools. The remaining schools are using fire wood for preparing mid day meal. MHRD has earmarked Rs.1150.00 Croress during 2013-14 for reimbursing the expenditure incurred by the State Governments for the procurement of unsubsidized LPG cylinders. Therefore, the State Government may promote use of LPG in the schools and submit their claims for the re-imbursement of expenditure incurred during 2013-14 on the procurement of unsubsidized cylinders for cooking mid day meal.

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vii) Weighing the mid day meal supplied by Centralised Kitchens/Self Help Groups

The rice swell up 2.5 to 3 times after cooking. Thus the mid day meal prepared from 100 grams of raw rice, 50 grams of vegetables, 20 grams of pulses etc. would weigh between 300-350 grams. JRM Team observed that all the schools in Bandana and Ahmednagar have weighing machines which can be used for weighing the quantity of cooked mid day meal supplied by the Centralised Kitchens and Self Help Groups. Thus the schools will get the required quantity of mid day meal.

**4. Best Practices observed by JRM**

- i) More than 95% coverage of children under MDMS against the enrolment
- ii) Micronutrient syrup , protein powder and IFA tablets Distributed by the State Government
- iii) Direct Funds Transfer ( Honorarium ) in CCH Accounts
- iv) Centralized procurement & supply of pulses & condiments to schools
- v) Storage bins for pulses and condiments in the school
- vi) Prefabricated kitchens installed in schools.
- vii) Fire extinguisher found in all schools
- viii) Sealed Food samples were found in all schools





- ix) Hand washing by children in all the schools



## 5 **Areas of Concern**

JRM has observed following areas of concern which require immediate intervention from the State Government:

- i) Cooking cost for primary and upper primary has not been revised with w.e.f 01.07.13
- ii) Dedicated Administrative structure for MDMS does not exist.
- iii) Too many intermediary levels in the flow of funds.
- iv) Inordinate delay in the release of funds up to school.
- v) More than 5 months delay in the payment of Honorarium to cook-cum-helpers.
- vi) Rs. 303 Crore have been released against recurring central assistance of Rs. 442 Crore

- under Adhoc release and balance of 1<sup>st</sup> Installment.
- vii) Non recurring central assistance of Rs.32.27 crore for the replacement of kitchen devices is yet to be released
  - viii) Only one meeting of SSMC has been held so far.
  - ix) Interruption due to non availability of Food Grains in ..... visited schools in both the districts.
  - x) Bins have not been provided for storage of Food Grain.
  - xi) No standard operating procedures for keeping one month's buffer stock in the schools.
  - xii) Quantity of pulses and oil has been reduced in Buldana district.
  - xiii) Modalities may be finalised for providing financial assistance to Govt , aided schools for construction of Kitchen-cum-stores.
  - xiv) Less quantity of vegetables and oil in the meals
  - xv) Usage of fire wood instead of LPG in the schools.
  - xvi) Dedicated Toll free number for GRM not displayed in the schools.
  - xvii) 40% of the sanctioned kitchen-cum-stores are yet to be constructed.
  - xviii) Quality of pulses in few schools and one SHG was poor.
  - xix) MDM Logo , Food Norms and Menu need to be displayed at prominent places in all the schools.
  - xx) Capacity building of Cook-cum-Helpers and personnel dealing with Record Management
  - xxi) Convergence with State Health Authorities / NRHM for School Health Programme be strengthened.
  - xxii) Less Inspections of schools by the District and Block officials.
  - xxiii) Community participation be encouraged to Monitor the scheme.
  - xxiv) Social audit be encourage for bringing transparency and accountability.
  - xxv) Poor sanitation in the toilets due to water scarcity.

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# **PART B**

## **NUTRITIONAL EVALUATION OF MID DAY MEAL SCHEME (MAHARASHTRA)**

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Mid Day Meal Scheme

## **Methodology**

A survey was conducted in government run primary and upper primary schools availing midday meal in the two districts of Buldhana and Ahmednagar, with the objective to collect information related to the following aspects of Mid Day Meal Scheme in the State:

- Anthropometric profile
- Nutritional Adequacy of the MDM
- Quality of the Mid Day Meal
- Satisfaction of children and parents on the served meal under MDM.

## **Methodology**

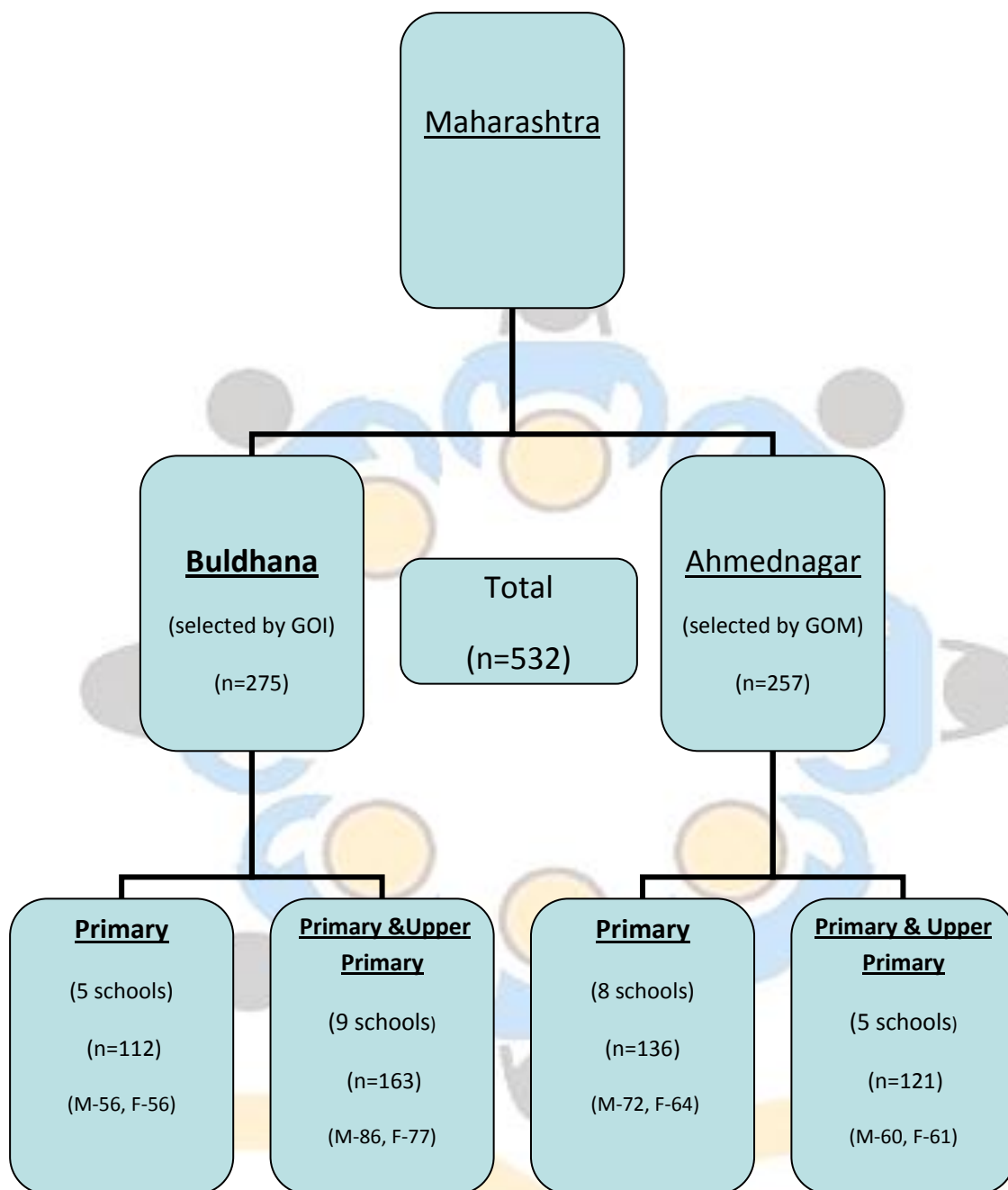
### **Selection of sample**

A sample of 532 children from 13 primary (I- V class) and 14 primary and upper primary schools (VI- VIII class) from the two selected districts of Maharashtra viz. Buldhana and Ahmednagar, were randomly selected. A multi stage, random sampling design was used for the selection of schools and the children in the selected districts. The methodology used focused on in depth study of the various aspects in the implementation of program. Thus, a restricted sample size ( n= 532) was selected across the schools in the 2 districts.

The detailing involved careful study and analysis of all the documents available with the implementing agency at the state, district, block and school level functionaries. Interviews with the stake holders, observations and record based enquiry of the methodology was followed to capture the information during the visits.

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Sampling design for the assessment of nutritional status of children two districts of Maharashtra

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## 1. Anthropometric measurements

Nutrition anthropology is one of the most important tool used for assessing the health and nutritional status of a population. The physical dimensions of the body are influenced by nutrition during the growing period of school age. Height and weight are the most commonly used anthropometric measurements. The related Z-scores which are used to assess nutritional status of the children are height for age (HAZ), weight for age (WAZ) and body mass index (BMI) for age which are age and gender dependent.



Measuring height using  
Stadiometer



Measuring weight and Body-Fat  
Percentage of children

**Height** was measured using a flexible but non-stretchable standardized measuring tape and a stadiometer. It was recorded to the nearest  $\pm 0.1$  cms. Height was taken with the child standing erect on a flat surface without shoes, with his/her arms hanging naturally at the sides. The child held his head in a comfortably erect position, with the lower border of the eye in the same horizontal plane as the external auditory meatus. A scale was held over the child's head without much pressure in the sagittal plane (central part of head). The height was then converted to meters for calculating the body mass index (BMI).

**The weight** of children was taken on electronic balance (Tanita Model- HD 318 ) having an accuracy of  $\pm 100$  g. In order to obtain accurate results, an area in the classroom was selected which was away from the wall. The weighing scale was placed on a flat and even surface. Since it was not feasible, to take weight with minimal clothing, it was taken while the child was wearing the school uniform but without shoes. Each child was requested to stand straight i.e. without any support and not move while the reading was being noted.

**Body mass index (BMI)** or Quetlet's index was calculated by using weight and height data. **BMI= Weight (Kg) / Height (m<sup>2</sup>)**

The Weight for age (WAZ) , Height for Age (HAZ) and Body Mass Index (BMI) values were compared with the international classification as given by the World Health Organization for children aged five to nineteen years (WHO, 2007).

### Classification of Children according to WHO, 2007:

Weight for Age (WAZ)	
Normal	-2SD to +1SD
Undernourished	< -2SD
Overweight	+1SD to +3SD
Height for Age (HAZ)	
Normal	-2SD to +1SD
Stunted	< -2SD
Tall	+1SD to +3SD
Body Mass Index (BMI)	
Normal	-2SD to +1SD
Moderately Undernourished	-2SD to -3SD
Severely Undernourished	< -3SD
Overweight	+1SD to < +3SD
Obese	$\geq + 3SD$

The data obtained was used to calculate variables used to assess the nutritional status of the children viz underweight, stunting and thinness through weight-for-age z scores (WAZ), Height-for-age z scores (HAZ) & BMI-for-age z scores (BMI).

**Underweight:** A child, who is 15-20% below the normal weight for his age and height, is classified as underweight. Underweight reveals low body mass relative to chronological age which is influenced by both, height and weight of the child.

**Stunting:** According to World Health Organization stunting refers to insufficient gain of height relative to age (WHO, 1995). It is an indicator of chronic under nutrition and is the result of extended periods of inadequate food intake or increased morbidity or a combination of both.

**Body Fat Percentage of the children** was analyzed using portable body fat monitor (Tanita model BC 541) based on Bioelectrical Impedance method to measure the body fat percentage of children. This measurement was carried out in a sub sample of the subjects (n= 83) in both the districts. BMI is not a reliable indicator of body composition in children. Studies have shown that children with low BMI may have a high body fat percentage thereby indicating lean obesity and inflammatory state of the body at a young age.

**Body Fat Percentage Chart for Children – Boys (Gallagher D et al.AJCN 2000, 72:694-701 )**

Age	Very Less	Healthy Range	Overweight	Obese
7 yrs	Less than 13%	13-20%	20-25%	More than 25%
8 yrs	Less than 13%	13-21%	21-26%	More than 26%
9 yrs	Less than 13%	13-22%	22-26%	More than 26%
10 yrs	Less than 13%	13-23%	23-27%	More than 27%
11 yrs	Less than 13%	13-23%	23-27%	More than 27%
12 yrs	Less than 13%	13-23%	23-27%	more than 27%
13 yrs	less than 12%	12-22%	22-26%	more than 26%
14 yrs	less than 12%	12-21%	21-25%	more than 25%
15 yrs	less than 11%	11-21%	21-24%	more than 24%
16 yrs	less than 10%	10-20%	20-24%	more than 24%

**Body Fat Percentage Chart for Children – Girls (Gallagher D et al.AJCN 2000, 72:694-701 )**

Age	Very Less	Healthy Range	Overweight	Obese
7 yrs	less than 15%	15-25%	25-29%	more than 29%
8 yrs	less than 15%	15-26%	26-30%	more than 30%
9 yrs	less than 16%	16-27%	27-31%	more than 31%
10 yrs	less than 16%	16-28%	28-32%	more than 32%
11 yrs	less than 16%	16-29%	29-33%	more than 33%
12 yrs	less than 16%	16-29%	29-33%	more than 33%
13 yrs	less than 16%	16-29%	29-33%	more than 33%
14 yrs	less than 16%	16-30%	30-34%	more than 34%
15 yrs	less than 16%	16-30%	30-34%	more than 34%
16 yrs	less than 16%	16-30%	30-34%	more than 34%



## 2. Nutritional Adequacy of the MDM

The quantity of MDM prepared on the day of the visit was checked keeping in mind the exact amounts of raw ingredients used and the number of children present on that day to find whether the “food norms” as recommended for MDM are adhered to by each of the school.

Additionally, weighing method was used for cooked food to assess whether the serving of meals was as per the recommendations for primary & upper primary children. The calories and proteins per serving was calculated.

A 24 Hour food recall was taken on a sub sample of 50 students belonging to upper primary school to assess the percentage contribution of calories and protein intake in the total day's diet of the child. Children of age 10 and above (std V – VIII) were considered for this Recall method. (Nutritive Value of Indian Foods, 2011)



24 Hour Diet Recall by Nutritionist

**Quantity and Quality of Mid Day Meal :**The prescribed nutrition to be provided by the Mid Day Meal is as follows:

1. 450 kcal and 12g of protein which is derived from 100 g of food grains (rice/wheat), 20g of pulses, 50g of vegetables and 5g of oil for children studying in primary classes
2. 700 kcal and 20g of protein, which is derived from 150g of food grains (rice/wheat), 30g of pulses, 75g of vegetables and 7.5g of oil in upper primary classes.

The quantity and quality of the meal were evaluated by the JRM team at the time of serving of meals in eleven schools of the two districts.

### **3. Quality of MDM served:**

Data was collected on the quality of MDM using a detailed observation checklist comprising of various aspects like- Storage of supplies, Cooking- process & area, Personal Hygiene of cook-cum-helpers, Waste disposal methods, practices during serving of meals and some general aspects.

A comprehensive observation proforma and questionnaire was used to assess the quality and storage of Raw materials specifically focusing on rice, pulses, iodized salt, spices & use of green leafy vegetables & other vegetables.

The quality of MDM was also assessed by Sensory Evaluation. The parameters included appearance, consistency, taste & overall acceptability of recipes prepared as a part of MDM. The evaluation was carried out on the school site by MDM team using 9-point Hedonic rating test.



**Hedonic Rating Scale**

Rating	Score
Like extremely	9
Like very much	8
Like moderately	7
Like slightly	6
Neither like nor dislike	5
Dislike slightly	4
Dislike moderately	3
Dislike verymuch	2
Dislike extremely	1

### **4. To review the satisfaction of the children and parents on the served meal under MDM with respect to quality & quantity.**

Random stratified sampling was done to select sample of children representative of the school population. The school authorities were asked to call parents of school children during the visit of the JRM team. Interview method using a questionnaire was utilized to gauge the acceptance of MDM served in the school by parents and children.

## Nutritional Assessment of the children in Buldhana & Ahmednagar districts

### 1. Anthropometric measurements:

The anthropometric measurements of the school going children in the two districts is summarized in Table 1.

**Table 1: Weight for Age (WAZ); Height for Age (HAZ); BMI; Z-Scores of school going children in Buldhana and Ahmednagar districts.**

<b>BULDHANA</b>						
	<b>Boys</b>		<b>Girls</b>		<b>Total</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>n</b>	<b>%</b>
<b>WAZ</b>	<b>n=57</b>		<b>n=69</b>		<b>n=126</b>	
Normal	26	45.6	22	31.9	48	38.1
Underweight	31	54.4	46	66.7	77	61.1
Overweight	0	0.0	1	1.4	1	0.8
<b>HAZ</b>	<b>n=138</b>		<b>n=137</b>		<b>n=275</b>	
Normal	102	73.9	107	78.1	209	76
Stunted	32	23.2	24	17.5	56	20.4
Tall	4	2.9	6	4.4	10	3.6
<b>BMI</b>	<b>n=138</b>		<b>n=137</b>		<b>n=275</b>	
Normal	83	60.1	83	60.6	166	60.4
Moderately Undernourished	32	23.2	23	16.8	55	20.0
Overweight	23	16.7	31	22.6	54	19.6

AHMEDNAGAR						
	Boys		Girls		Total	
	N	%	N	%	n	%
<b>WAZ</b>	<b>n=77</b>		<b>n=72</b>		<b>n=149</b>	
Normal	50	64.9	48	66.7	98	65.8
Underweight	25	32.5	24	33.3	49	32.9
Overweight	2	2.6	0	0.0	2	1.3
<b>HAZ</b>	<b>n=129</b>		<b>N=128</b>		<b>n=257</b>	
Normal	109	84.5	96	75	205	79.8
Stunted	16	12.4	31	24.2	47	18.3
Tall	4	3.1	1	0.8	5	1.9
<b>BMI</b>	<b>n=129</b>		<b>n=128</b>		<b>n=257</b>	
Normal	83	64.3	82	64.1	165	64.2
Moderately Undernourished	37	28.7	37	28.9	74	28.8
Overweight	9	7.0	9	7.0	18	7.0

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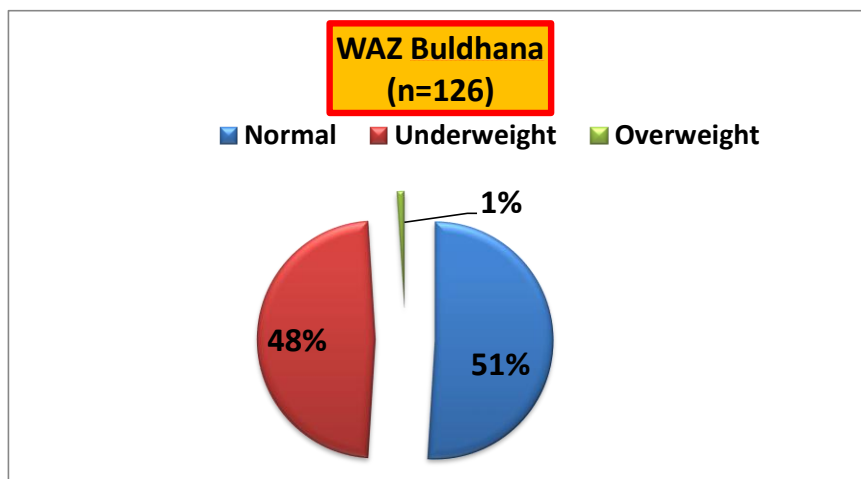


Figure :1: Weight for Age classification in Buldhana

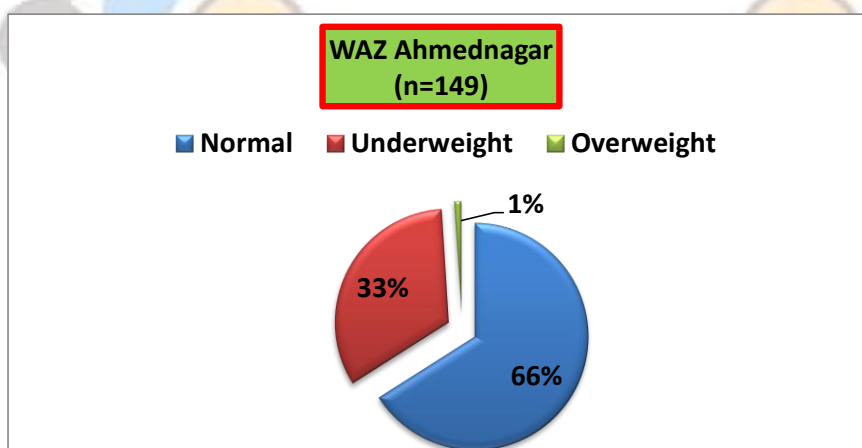


Figure 2: Weight for Age classification in Ahmednagar

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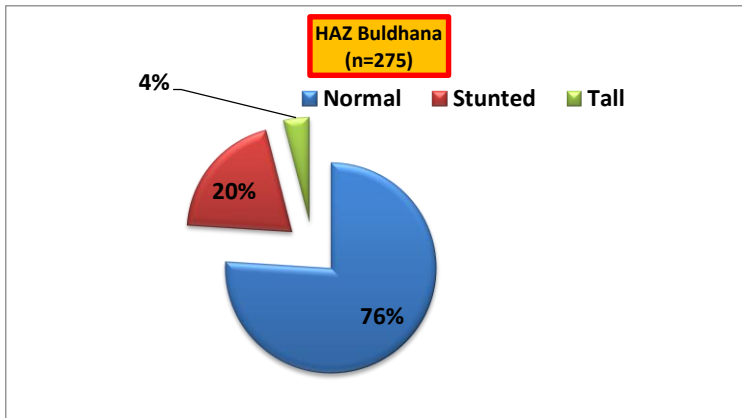


Figure 3: Height for Age classification in Buldhana

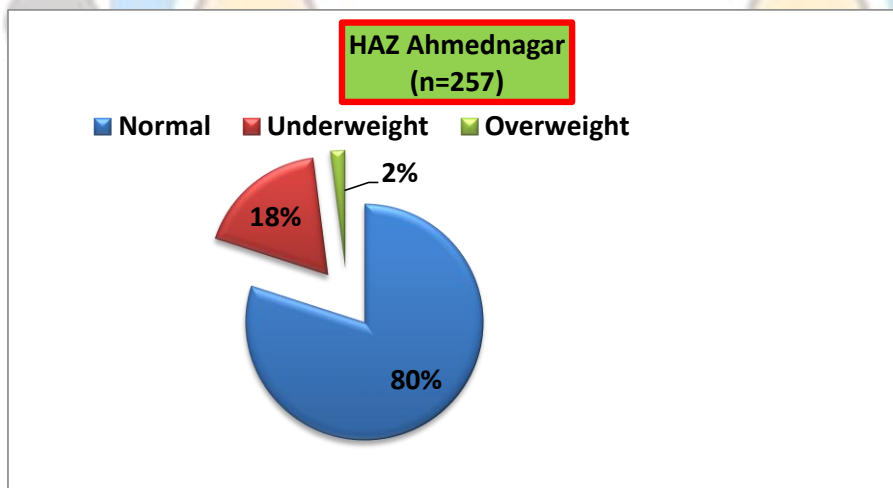
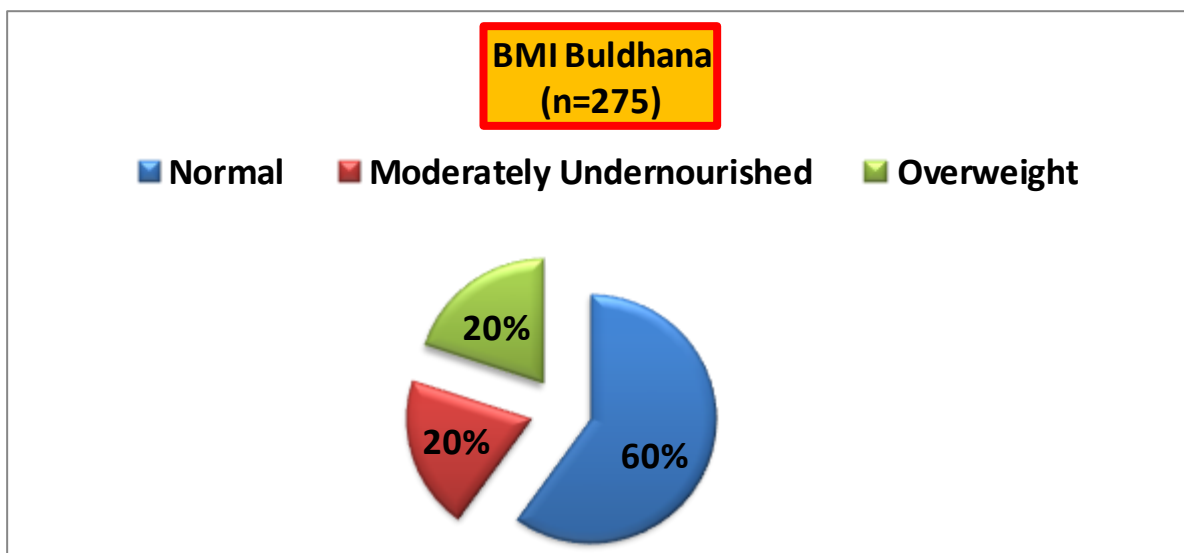
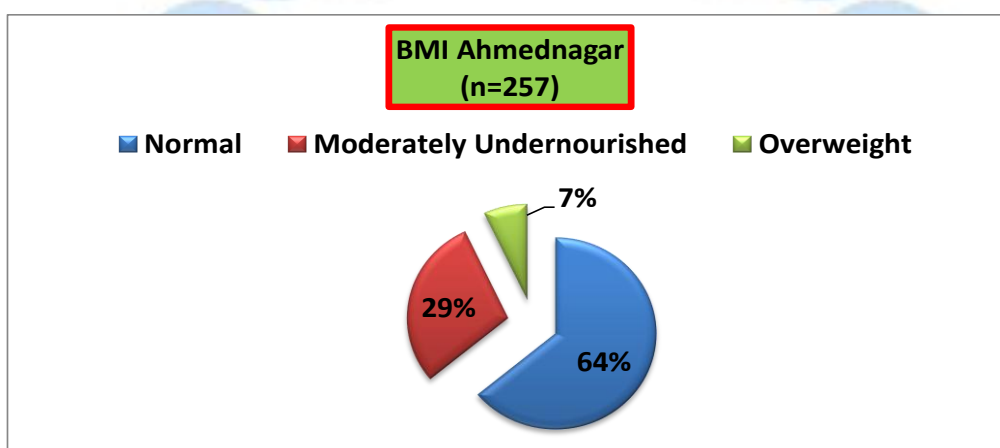


Figure 4: Height for Age classification in Ahmednagar

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**Figure 5: BMI for Age classification in Buldhana**



**Figure 6: BMI classification in Ahmednagar**

Weight for age reflects the body mass relative to the chronological age. The data reveals that 61.0 % and 32.9 % of the total school going children studied respectively in Buldhana and Ahmednagar districts were underweight. The percentage prevalence of underweight was higher in girls in both the districts.

Height for Age reflects long term cumulative effect of nutritional inadequacies. The data reveals that almost 20 % of the total population studied was stunted with a high percentage of stunting observed in girls in Ahmednagar district (24.2 %)

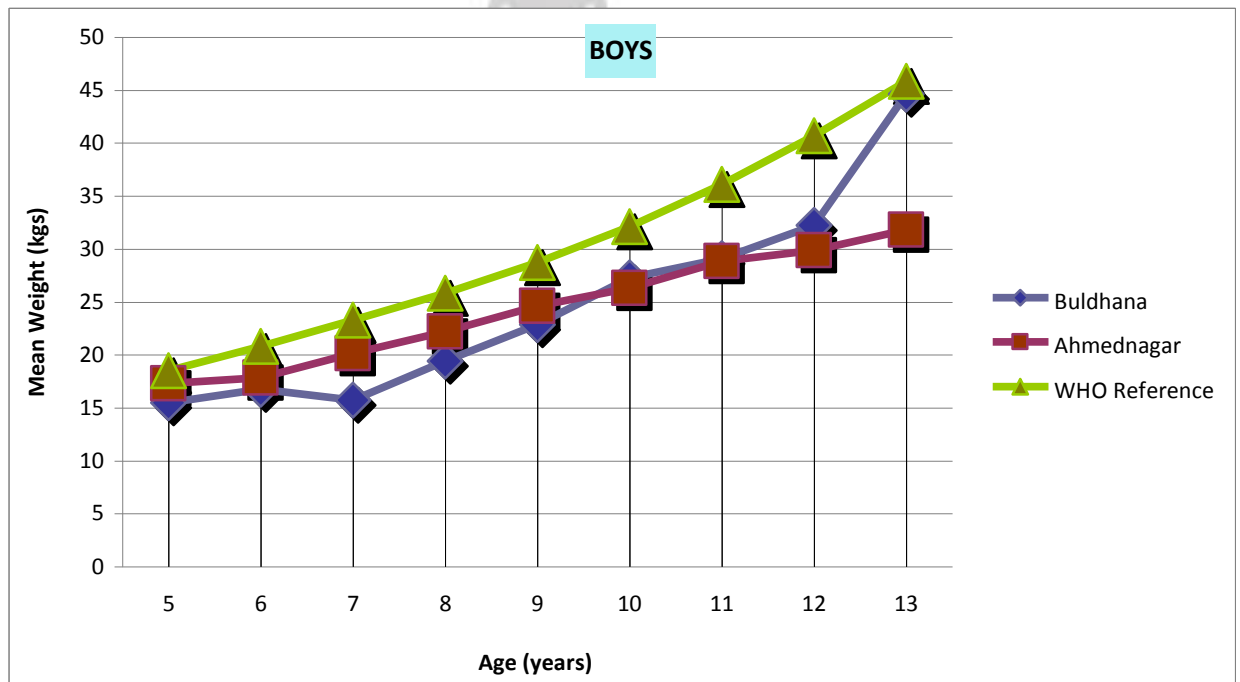
BMI Z-scores reveal 20 % - 29 % of the school going children in the moderately undernourished category in both the districts. A salient observation with regards to BMI in Buldhana district was that almost 19.6 % of the school going children were overweight. This could be attributed to the high percentage of stunting observed in the population.

Table 2 :Mean Weight(kg) in school going children of Buldhana and Ahmednagar districts							
Age (years)	Buldhana			Ahmednagar			Reference Standards, WHO,2006
	N	Weight (kg) (Mean)	% Reference Standards	n	Weight (kg) (Mean)	% Reference Standards	
<b>Boys</b>							
5	2	15.5	83.78	3	17.27	95.94	18.5
6	14	16.76	80.58	13	17.85	87.93	20.8
7	10	15.73	67.51	12	20.12	87.86	23.3
8	12	19.43	75.31	25	22.19	86.01	25.8
9	15	22.87	79.69	21	24.63	84.64	28.7
10	28	27.28	84.98	18	26.32	79.52	32.1
11	30	29.1	80.61	16	28.81	77.03	36.1
12	18	32.24	79.21	17	29.85	71.41	40.7
13	9	44.62	97.42	4	31.83	69.20	45.8
<b>Girls</b>							
5	4	13.48	74.89	7	15.8	87.78	18
6	12	15.39	75.81	17	16.47	81.13	20.3
7	17	16.22	70.83	11	18.3	79.91	22.9
8	15	18.35	71.12	17	20.29	78.64	25.8
9	16	23.02	79.11	18	23.72	81.51	29.1
10	28	26.68	80.60	18	24.73	74.71	33.1
11	17	31.97	85.48	21	29.43	78.69	37.4
12	22	38.22	91.44	13	30.87	73.85	41.8
13	6	44.93	97.67	6	33.47	72.76	46



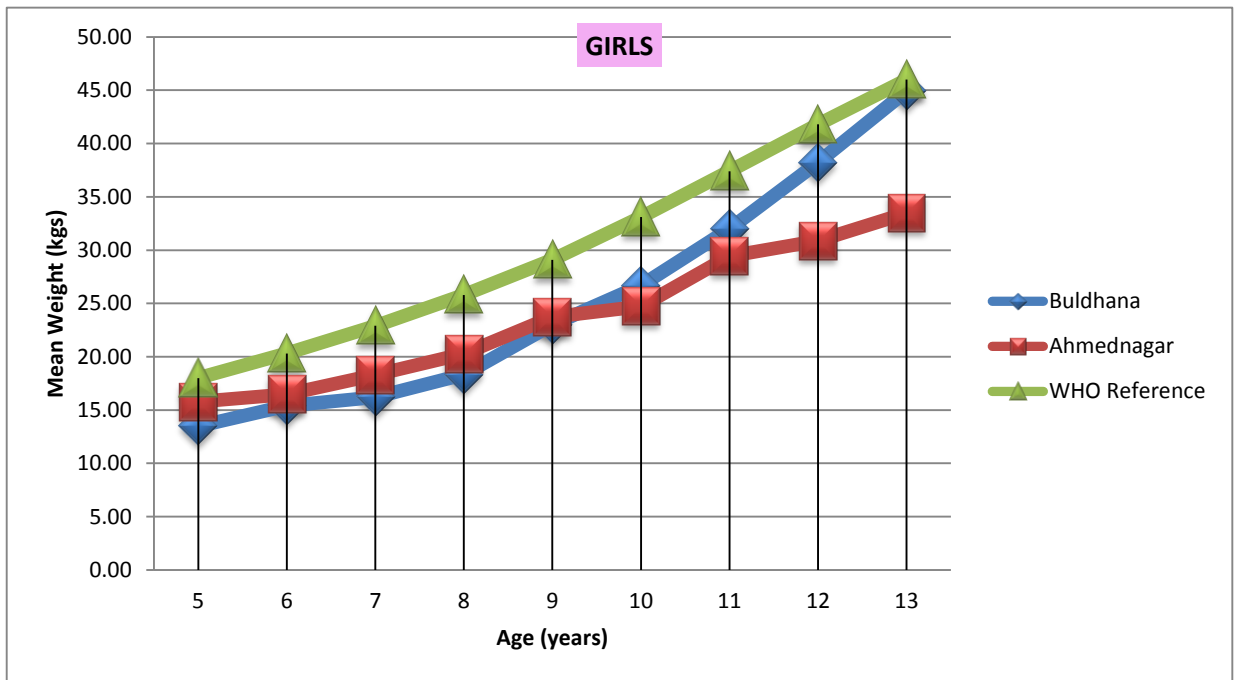
The mean weight of the boys and girls in the two districts reveal that the boys were meeting only 80 % of the reference standards and the girls were meeting 70-75 % of the reference standards. This is in line with the high percentage of under-nutrition observed in both the districts.

**Figure 7: Mean Weight of all the BOYS in Both Districts as compared to WHO Reference Standards. (n=267)**



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Figure 8: Mean Weight of all the GIRLS in Both Districts as compared to WHO Reference Standards. (n=265)



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Table 3 :Mean Height(cm) of school going children in Buldhana and Ahmednagar districts							
Age (years)	Buldhana			Ahmednagar			Reference Standards, WHO,2006
	N	Height (cm) (Mean)	% Reference Standards	n	Height (cm) (Mean)	% Reference Standards	
<b>Boys</b>							
5	2	111.25	101.88	3	113.17	103.64	109.2
6	14	113.47	98.07	13	113.95	98.49	115.7
7	10	110.35	90.45	12	118.52	97.15	122
8	12	119.66	93.41	25	125.43	97.92	128.1
9	15	129.53	96.88	21	131.26	98.18	133.7
10	28	134.57	96.95	18	133.56	96.22	138.8
11	30	138.45	96.35	16	139.16	96.84	143.7
12	18	141.64	94.87	17	141.21	94.58	149.3
13	9	159.31	101.86	4	146.25	93.51	156.4
<b>Girls</b>							
5	4	106	99.07	7	108.34	101.25	107
6	12	110.79	96.34	17	111.42	96.89	115
7	17	114.18	93.74	11	117.44	96.42	121.8
8	15	120.17	94.03	17	121.67	95.20	127.8
9	16	129.06	96.96	18	129.01	96.93	133.1
10	28	135.20	97.83	18	131.97	95.49	138.2
11	17	140.96	97.69	21	139.53	96.69	144.3
12	22	148.77	98.20	13	144.02	95.06	151.5
13	6	152.92	97.22	6	146.38	93.06	157.3

The mean height of the boys and girls observed in Buldhana and Ahmednagar district reveal that majority of the children were not meeting 100 % of the reference standards. The observations in Ahmednagar district were also similar to Buldhana district.

Figure 9: Mean Height of all the BOYS in Both Districts as compared to WHO Reference Standards. (n=267)

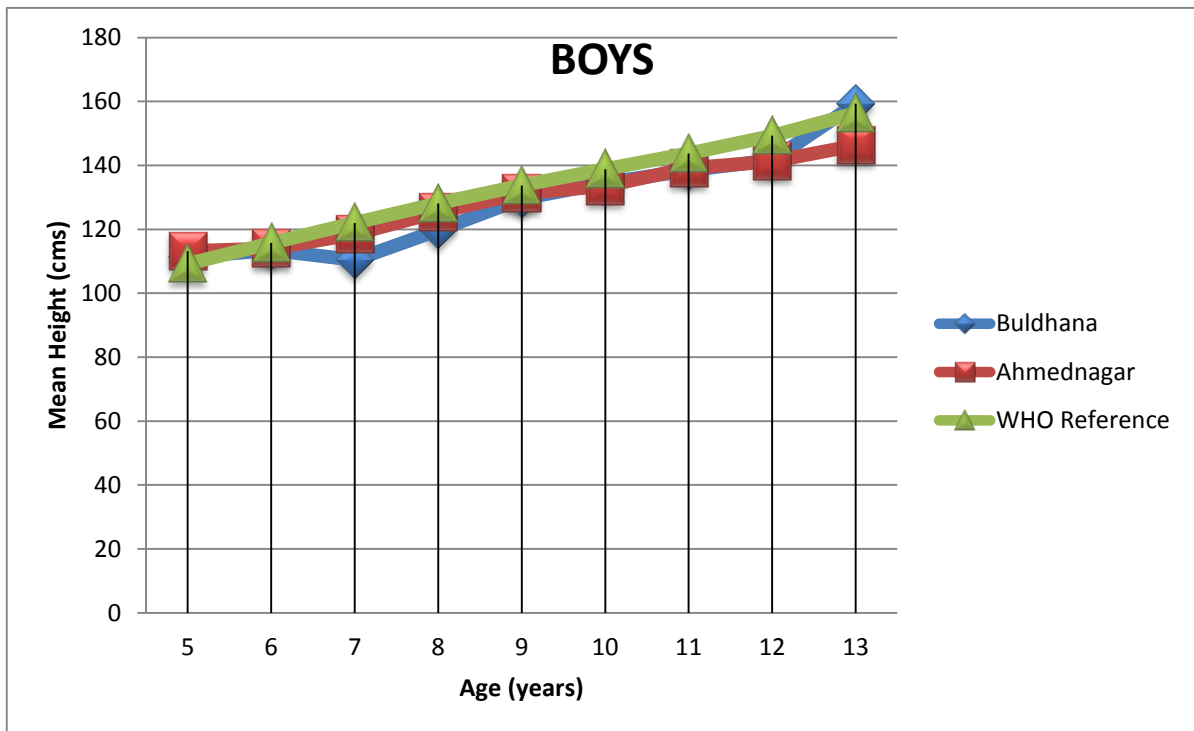


Figure 10: Mean Height of all the GIRLS in Both Districts as compared to WHO Reference Standards. (n=265)

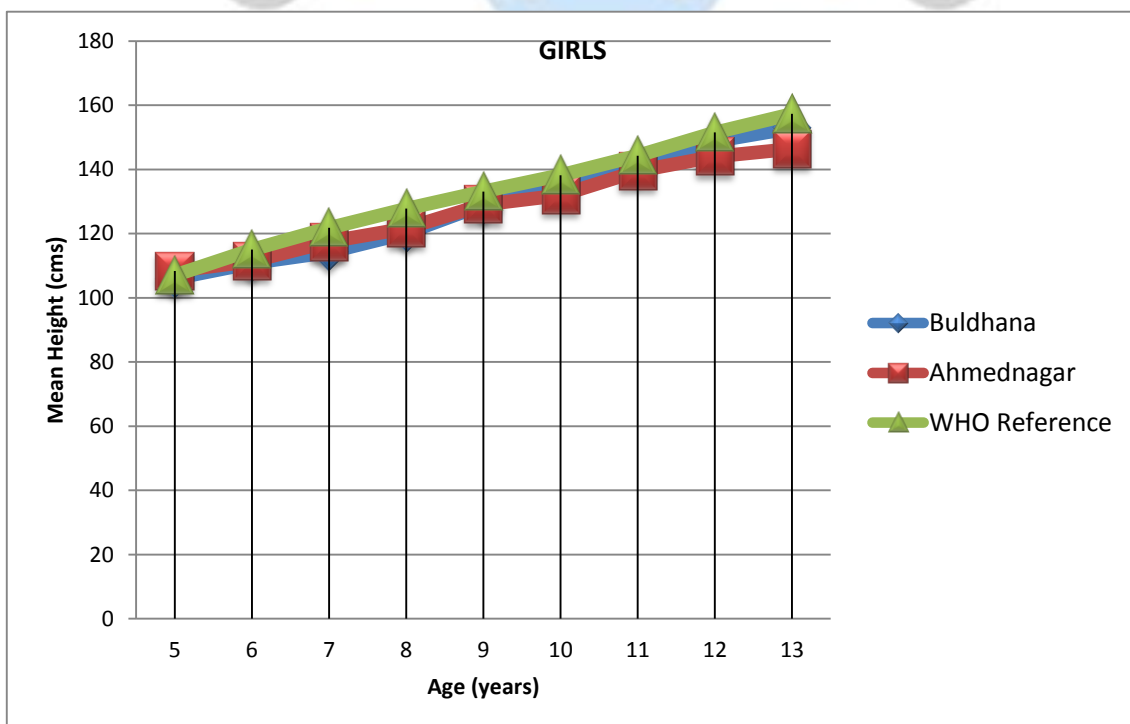
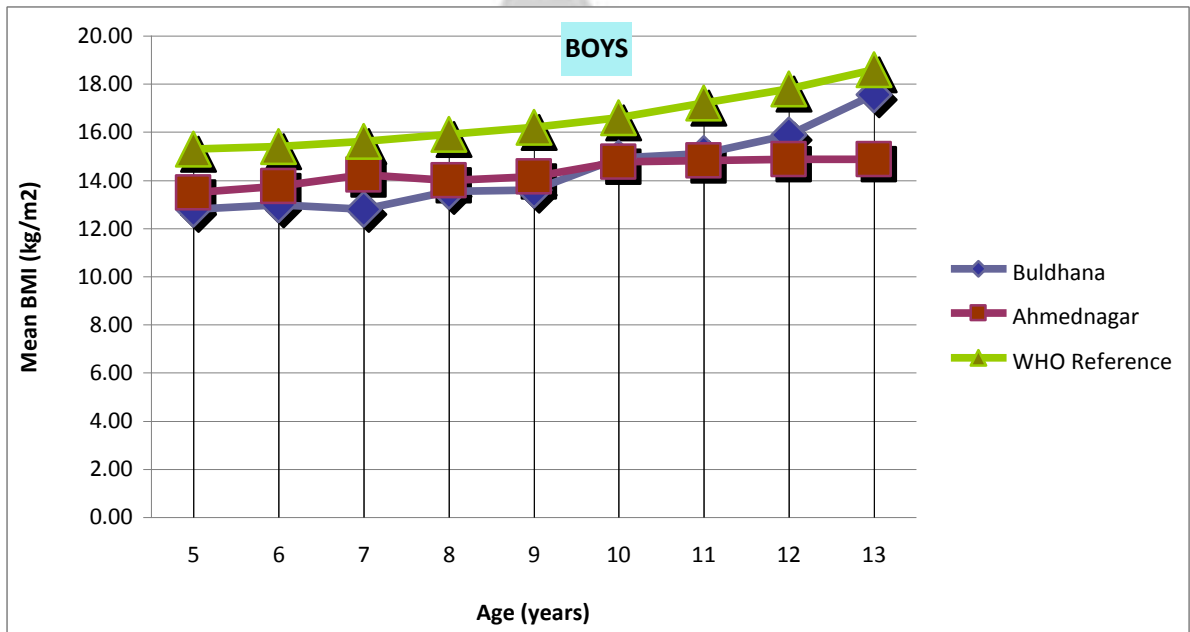




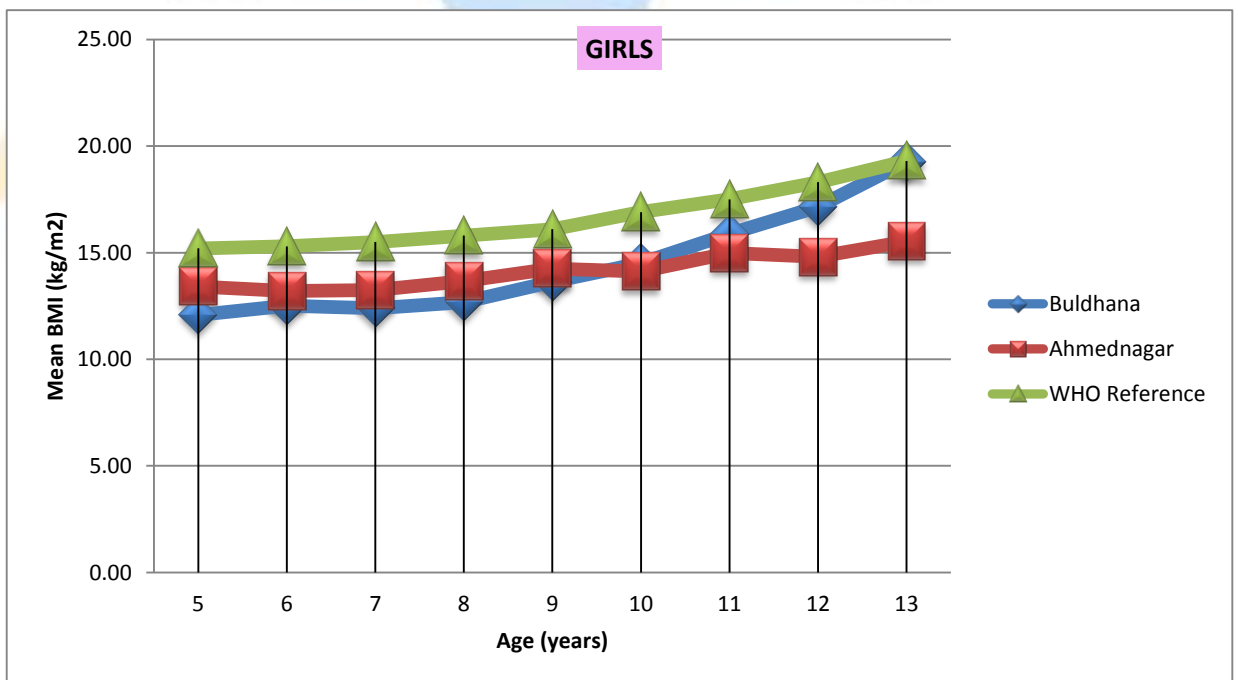
Table 4 :Mean Body Mass Index (BMI) of school going children in Buldhana and Ahmednagar							
Age (years)	Buldhana			Ahmednagar			Reference Standards, WHO,2006
	n	BMI (kg/m <sup>2</sup> ) (Mean)	% Reference Standards	n	BMI (kg/m <sup>2</sup> ) (Mean)	% Reference Standards	
<b>Boys</b>							
5	2	12.78	83.53	3	13.48	88.10	15.3
6	14	12.97	84.22	13	13.74	89.22	15.4
7	10	12.78	81.94	12	14.24	91.28	15.6
8	12	13.54	85.16	25	13.99	87.99	15.9
9	15	13.59	83.89	21	14.15	87.35	16.2
10	28	14.93	89.94	18	14.75	88.86	16.6
11	30	15.11	87.83	16	14.81	86.10	17.2
12	18	15.89	89.27	17	14.87	83.54	17.8
13	9	17.55	94.35	4	14.86	79.89	18.6
<b>Girls</b>							
5	4	12.08	79.47	7	13.41	88.22	15.2
6	12	12.51	81.76	17	13.20	86.27	15.3
7	17	12.39	79.94	11	13.24	85.42	15.5
8	15	12.67	80.19	17	13.67	86.52	15.8
9	16	13.64	84.72	18	14.25	88.51	16.1
10	28	14.51	85.86	18	14.12	83.55	16.9
11	17	15.89	90.80	21	14.98	85.60	17.5
12	22	17.14	93.66	13	14.81	80.93	18.3
13	6	19.28	99.90	6	15.53	80.47	19.3

The mean BMI of boys and girls was only 80 – 85 % of the reference standards in both the districts and was lower in girls as compared to boys.

**Figure 11: Mean BMI of all the BOYS in Both Districts as compared to WHO Reference Standards. (n=267)**



**Figure 12: Mean BMI of all the GIRLS in Both Districts as compared to WHO Reference Standards. (n=265)**



### Body fat Percentage of School going Children in Buldhana & Ahmednagar Districts.

A random sub sample of 83 boys and girls from upper primary schools of both the districts were selected for Body Fat Analysis using Bioelectrical Impedence Technique and classified based on Body Fat Classification for children (Gallgher et al,2000) . The distribution pattern based on Body Fat Percentage reveals that majority(80%) of the boys in both the districts had very less body fat percentage whereas majority (49%) of the girls were in healthy range and 34% were in overweight category.

**Table 5: Comparison of Body Fat % in BOYS from Both Districts.**

BOYS	BULDHANA (n=18)				AHMEDNAGAR (n=24)			
	Very Less	Healthy Range	Over-weight	Obese	Very Less	Healthy Range	Over-weight	Obese
10yrs	100 %	-	-	-	100 %	-	-	-
11yrs	73 %	27%	-	-	86%	14%	-	-
12yrs	50 %	50%	-	-	100 %	-	-	-
13yrs	100 %	-	-	-	100 %	-	-	-

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**Table 6: Comparison of Body Fat % in GIRLS from Both Districts.**

GIRLS	BULDHANA (n=19)				AHMEDNAGAR (n=22)			
	Very Less	Healthy Range	Over-weight	Obese	Very Less	Healthy Range	Over-weight	Obese
10yrs	57%	29%	-	14%	44%	56%	-	-
11yrs	75%	25%	-	-	100%	-	-	-
12yrs	50%	50%	-	-	50%	33%	17%	-
13yrs	50%	-	50%	-	-	100%	-	-

**Table 7: Comparison of Body Fat % in BOYS and GIRLS from Both Districts.**

AGE	BOYS (n=42)				GIRLS (n=41)			
	Very Less	Healthy Range	Over-weight	Obese	Very Less	Healthy Range	Over-weight	Obese
10yrs	100%	-	-	-	50%	44%	-	6%
11yrs	78%	22%	-	-	89%	11%	-	-
12yrs	82%	18%	-	-	50%	42%	8%	-
13yrs	100%	-	-	-	25%	50%	25%	-



**Table 8: Comparison of Mean Body Fat % with Mean BMI of BOYS.**

AGE	BOYS (n=42)					
	Mean BF%		Mean BF% (pool data)	Interpretation (Gallagher,2000)	Mean BMI (kg/m2)	Interpretation (WHO,2007)
	BD	AH				
10yrs	5	7.25	6.9	Very Less	14.84	Normal
11yrs	9.6	7.34	8.7	Very Less	14.96	Normal
12yrs	10.4	6.5	7.9	Very Less	15.38	Normal
13yrs	11	6	7.7	Very Less	16.2	Normal

**Table 9: Comparison of Mean Body Fat % with Mean BMI of GIRLS.**

AGE	GIRLS (n= 41)					
	Mean BF%		Mean BF% (pool data)	Interpretation (Gallagher,2000)	Mean BMI (kg/m2)	Interpretation Who,2007
	BD	AH				
10yrs	16.7	15.3	16	Healthy Range	14.31	Normal
11yrs	9.7	13	11.5	Very Less	15.4	Normal
12yrs	15.6	19	17.3	Healthy Range	15.97	Normal
13yrs	18.4	16.4	17.4	Healthy Range	17.4	Normal

A comparison was made between the mean BMI and the mean Body Fat for specific age groups in Boys and Girls from both Districts. The data revealed that in all the Boys who were classified as Normal based on BMI were categorised into Undernourished category (very less Body Fat) based on body fat percentage. However, in Girls the majority of them who were classified as normal BMI had Body Fat in healthy range. This clearly indicates that BMI may not be a reliable indicator for body composition.

## Nutritional Adequacy of Mid Day Meal –Quantity and Quality

The prescribed nutrition to be provided by the Mid Day Meal is as follows:

1. 450 kcal and 12g of protein which is derived from 100 g of food grains (rice/wheat), 20g of pulses, 50g of vegetables and 5g of oil for children studying in primary classes and
2. 700 kcal and 20g of protein, which is derived from 150g of food grains (rice/wheat), 30g of pulses, 75g of vegetables and 7.5g of oil in upper primary classes.

The quantity and quality of the meal were evaluated by the JRM team at the time of serving of meals in eleven schools of the two districts. The measured quantities of the meal served were found to be adequate in all the 11 surveyed schools. However, it was observed that the quantity of rice served was excess in comparison to the quantity of pulses and vegetables.

A Random sub-sample of children were subjected to a 24 hour recall to calculate the macro and micro nutrient intake. The details of the same are appended in the tables below:

**Tools used like measuring cups, portion size during 24 hour Recall of children**



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**Table 3.1: Nutrient Intake in Upper Primary school going children in Buldhana and Ahmednagar districts.**

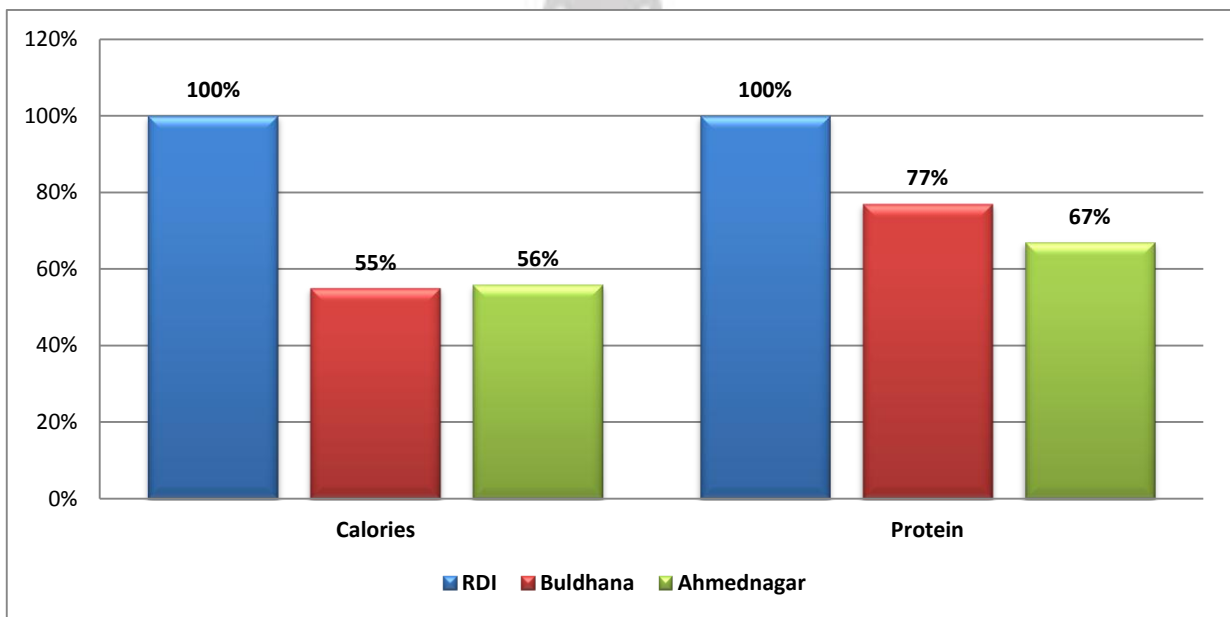
	Calories Kcal	Protein Gm	Fat gm	CHO Gm	Ca mg	Fe mg	Vit C mg
Ahmednagar (n=25)	1178	27	27	204	352	8.7	26
RDI %	56%	67%	-	-	44%	36%	65%
Buldhana (n=25)	1166	31	36	177	422	8.5	23
RDI %	55%	77%	-	-	53%	35%	57%
Combined (n=50)	1172	29	32	191	387	8.6	24
RDI %	56%	72%	-	-	48%	36%	60%

**Table 3.2: Percentage Distribution of Macronutrients (PER DAY) Based on 24 Hour Recall in Upper Primary Children.**

Macronutrient	BULDHANA	AHMEDNAGAR
Energy intake (kcal)	1166	1178
Carbohydrate (g)	177	204
%en from CHO	61%	69%
Protein (g)	31	27
%en from protein	11%	10%
Fat (g)	36	27
%en from fat	28%	21%

It is very evident that the school going children were meeting 40-60% of the RDI of macro and micronutrients. The macronutrient distribution also showed a low protein and a high fat intake. The gross inadequacy of the diet is clearly reflected in the higher percentage of the under-weight and stunting observed in the children.

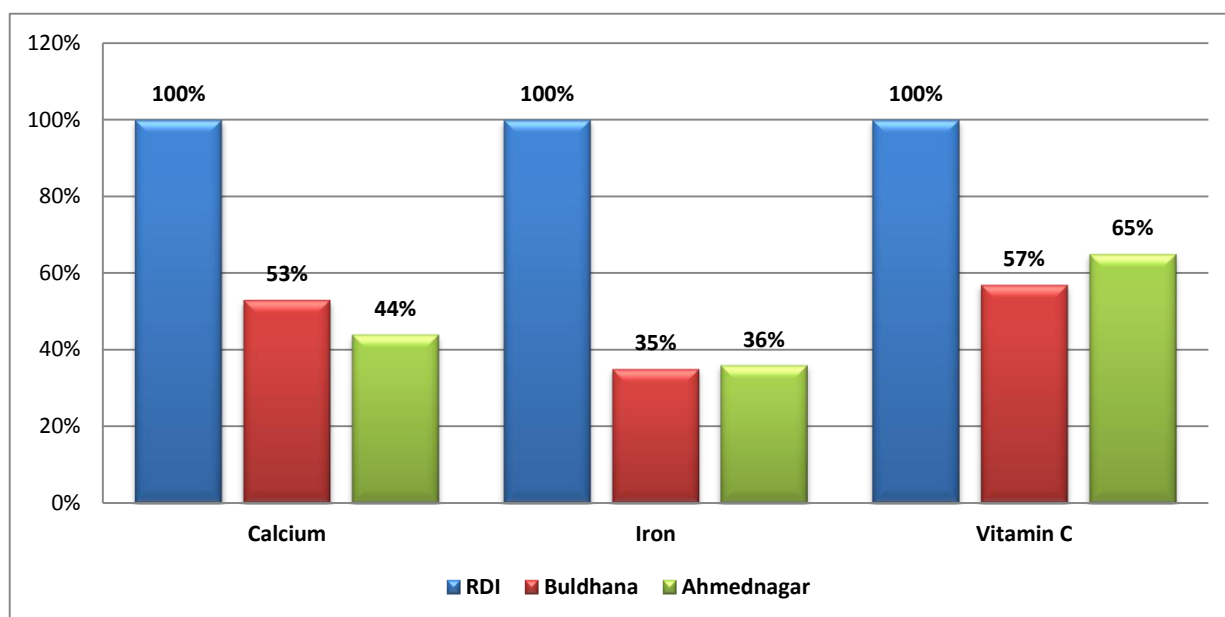
**Table 3.3: Energy and Protein Intake per day(% RDI) in Both the Districts**



As per %RDI, the caloric intake of the population was sub-optimal i.e. around 55% only. The protein intake was also lower than the %RDI i.e. 77% and 67% in both districts.

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**Table 3.4: Comparison of Calcium, Iron and Vitamin C with RDI in Both Districts (Per Day).**



As compared to % RDI, the iron intake in school going children was only 35% & 36% followed by calcium intake i.e. 53% and 44% in both districts respectively. This is also reflected in high prevalence (80%) of moderate anemia in the population surveyed.

#### Nutritional Deficiencies in the Population Surveyed

A sub sample of school going children from both the districts was subjected to clinical examination by a local doctor from primary healthcare centre and a rapid Hemoglobin (Hb) test was performed. The prevalence of anemia is summarized in table 3.4.

**Table 3.5: Prevalence of Anemia in Boys and Girls from Both Districts.**

Hemoglobin (Hb) (mg/dl)	Boys (n=119)			Girls (n=101)			Total (n=220)		Grand Total (n=220)
	BD (n=36)	AN (n=83)	Total	BD (n=31)	AN (n=70)	Total	BD (n=67)	AN (153)	
<b>Severe (&lt;8.0)</b>	-	-	-	1 (100%)	-	1 (1%)	1 (2%)	-	1 (0.5)
<b>Moderate (8.0 – 10.9)</b>	28 (52%)	71 (52%)	99 (83%)	26 (48%)	67 (48%)	93 (92%)	54 (80%)	138 (90%)	192 (87%)



<b>Mild</b> <b>(11.0 – 11.5)</b>	<b>6</b> <b>(75%)</b>	<b>12</b> <b>(80%)</b>	<b>18</b> <b>(15%)</b>	<b>2</b> <b>(25%)</b>	<b>3</b> <b>(20%)</b>	<b>5</b> <b>(5%)</b>	<b>8</b> <b>(12%)</b>	<b>15</b> <b>(10%)</b>	<b>23</b> <b>(10.5%)</b>
<b>Non – Anemic</b> <b>(&gt;11.5)</b>	<b>2</b> <b>(50%)</b>	<b>-</b>	<b>2</b> <b>(2%)</b>	<b>2</b> <b>(50%)</b>	<b>-</b>	<b>2</b> <b>(2%)</b>	<b>4</b> <b>(6%)</b>	<b>-</b>	<b>4</b> <b>(2%)</b>

It was observed that a total of 87% of the school going children in both the districts were suffering from Moderate anemia (Hb=8.0-10.9g/dl). Only 2% of the total population was non-anemic. There was no difference in the percentage prevalence of anemia between Boys and Girls.

The other clinical signs and symptoms observed in both the districts include mottled enamel, paleness, protein energy malnutrition etc (Table & ). The high incidence of mottled enamel in both districts may be related to the hardness of water. Thus the JRM team recommends testing the water samples for fluoride content.

**Table 3.6 : Nutritional Deficiencies based on Visual Examinations Buldhana**

<b>Sign &amp; Symptoms</b>	<b>Cases Observed</b>
<b>Mottled Enamel</b>	<b>31</b>
<b>Worm Infestation</b>	<b>12</b>
<b>Paleness (Hands &amp; Palms)</b>	<b>10</b>
<b>PEM</b>	<b>7</b>
<b>Pale Eyes</b>	<b>5</b>
<b>Fluorosis</b>	<b>3</b>
<b>Flag Sign</b>	<b>2</b>
<b>Hypo Pigmented Patches</b>	<b>1</b>
<b>Lower Tongue Nodule</b>	<b>1</b>

**Table 3.7 : Nutritional Deficiencies based on Visual Examinations Ahmednagar**

Sign & Symptoms	Cases Observed
Mottled Enamel	30
Paleness (Hands & Palms)	29
Pale Eyes	20
Flag sign	11
Dental Caries	6
Knocked Knees	5
PEM	4
Hypo Pigmented Patches	1
Bleeding Gums	1



**Collection of Blood sample for Haemoglobin Analysis**



**Health Checkup by a Doctor**

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**The observations with regards to the cyclic Mid Day Meal Menu, Quantity and Supplementary feeding with suggested recommendations are summarized below:**

**1.Menu:**

<b>Observations</b>	<b>Recommendations by JRM (Nutrition Team)</b>
Only rice based recipes are prepared.	Alternate rice and wheat preparations should be included in order to provide a “wholesome meal”.
Only 1-2 pulse varieties are used, Especially 89% schools use only Matki.	Include all pulses in rotation like Matki, Moong, Chawli, Chana-harbhara.
Supplementary food given once a week	Supplementary food should be given 3 -5 times a week
Monotony of recipes	Variety of preparations depending on locally available foods should be planned in order to increase acceptability of food by children. The JRM Team has made suggestions on the variety of preparations.  Modifications should be made in the ingredients of the cyclic menu to enhance the nutrient density and acceptability of the preparations.

**2.Quantity:**

- According to the observations of the nutrition team, the amount of cooked rice preparation consumed by the primary children was on an average 2 cups(75 grams raw rice) and upper primary children consumed on an average not more than 3 cups (100 grams raw rice).
- Hence the team strongly recommends to modify the current allocation of 100grams and 150 grams of rice to 75grams and 100grams respectively for the Primary and Upper primary school children.
- It was also observed that against the MDM recommended 20 grams and 30 grams of pulses only around 15grams and 25grams was being used respectively for the Primary and Upper Primary children. This shows that the utilization of pulses in recipes was not meeting the food norms. Further the team suggests that as the children are in the growth phase, the pulses intake(a significant source of proteins) needs to be increased in the MDM food norms.
- Another salient observation was regarding the amount of vegetables added to the recipes which were meeting around 1/4th of the MDM food norms. Furthermore the use of green leafy vegetables was very negligible, thus it is suggested that it should be made mandatory to adhere to vegetable norms laid by MDM in terms of quality & the locally available seasonal vegetables should be emphasized.



**Using Kitchen Weighing Scale for Standardizing portion size**

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Observations	Recommendations by JRM (Nutrition Team)
Quantity of rice provided is more and quantity of pulse is less than the recommended amount.	The amount of rice recommended by "Food Norms" needs to be reconsidered.
Children are unable to consume the amounts recommended	Focus should be on portion size with nutrient density with minimal wastage.
Leafy vegetables are not used in most schools.	Locally available green leafy vegetables should be included like- ambat chuka, drumstick leaves( shevgyacha pala),radish greens( cauliflower greens (phool gobi or flower cha pala, ambadi ki bhaji along with pulses, vegetables and nuts
Addition of leafy vegetables is random, without measurements/ not in specific recipes.	Standard amounts of green leafy veg should be used for fixed number of days per week. (atleast 3times/week).
Very less amounts of other vegetables are added.	More seasonal and locally available vegetables & nuts can be incorporated in recipes to make it more nutrient dense.
Overall quantity of cooked Mid Day Meal is kept the same daily in most schools irrespective of attendance of students	The quantity of each of ingredient used to prepare recipes of Mid Day Meal prepared has to be modified daily depending on the attendance of children.

  
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### 3. Supplementary Foods :

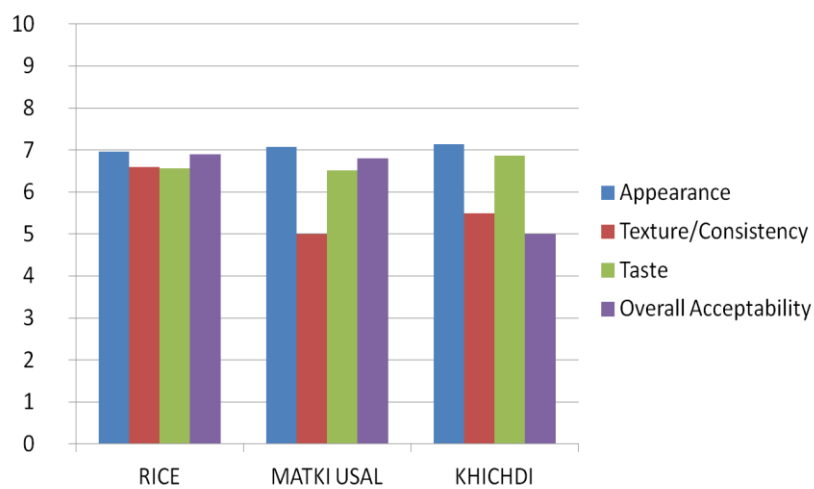


Supplement nutrition given to students

Observations	Recommendations by JRM (Nutrition Team)
Lot of variations seen in the supplementary foods given to children.	The variety and quantity of Supplementary foods should be standardized all across the state. E.g. 25 g Groundnuts/25 gms Roasted Chana/ 25 gms Dry dates(kharik)/ 25 gms Til Ladoos (4 nos) / 25 gms Groundnut,Til,Chana Chikki etc
Variety of biscuits are used as a supplementary food	Maida based biscuits, commonly given as a supplementary food, should be discontinued as it offers no nutritional benefit. Instead a variety of locally available seasonal fruits (1 medium size portion) may be considered. eg : 1 Banana / 1 Chicku / 1 Guava etc .
	Boiled eggs can also be considered as a supplementary food.
	The children who are vegetarian on that particular day can be given a handful of roasted groundnuts.
Supplementary foods are given once a week.	Supplementary foods as suggested should be given atleast 5 times a week.
1 spoon of protein powder is randomly given to children	The protein powder "Zen-pro" or whole milk powder may be used as an ingredient in the preparation of the Mid Day Meal

#### 4. Sensory Evaluation of the MDM served in schools of both districts.

The MDM guidelines clearly mention that a supervising teacher should taste the prepared meal prior to serving, which was practiced in almost all the schools. The sensory quality of the meals was either good or very good in all the surveyed schools. All the children reported that they finished their serving and got more if asked for.



**Display of MDM Cyclic Menu in Kitchen**

Hedonic Rating Scale :

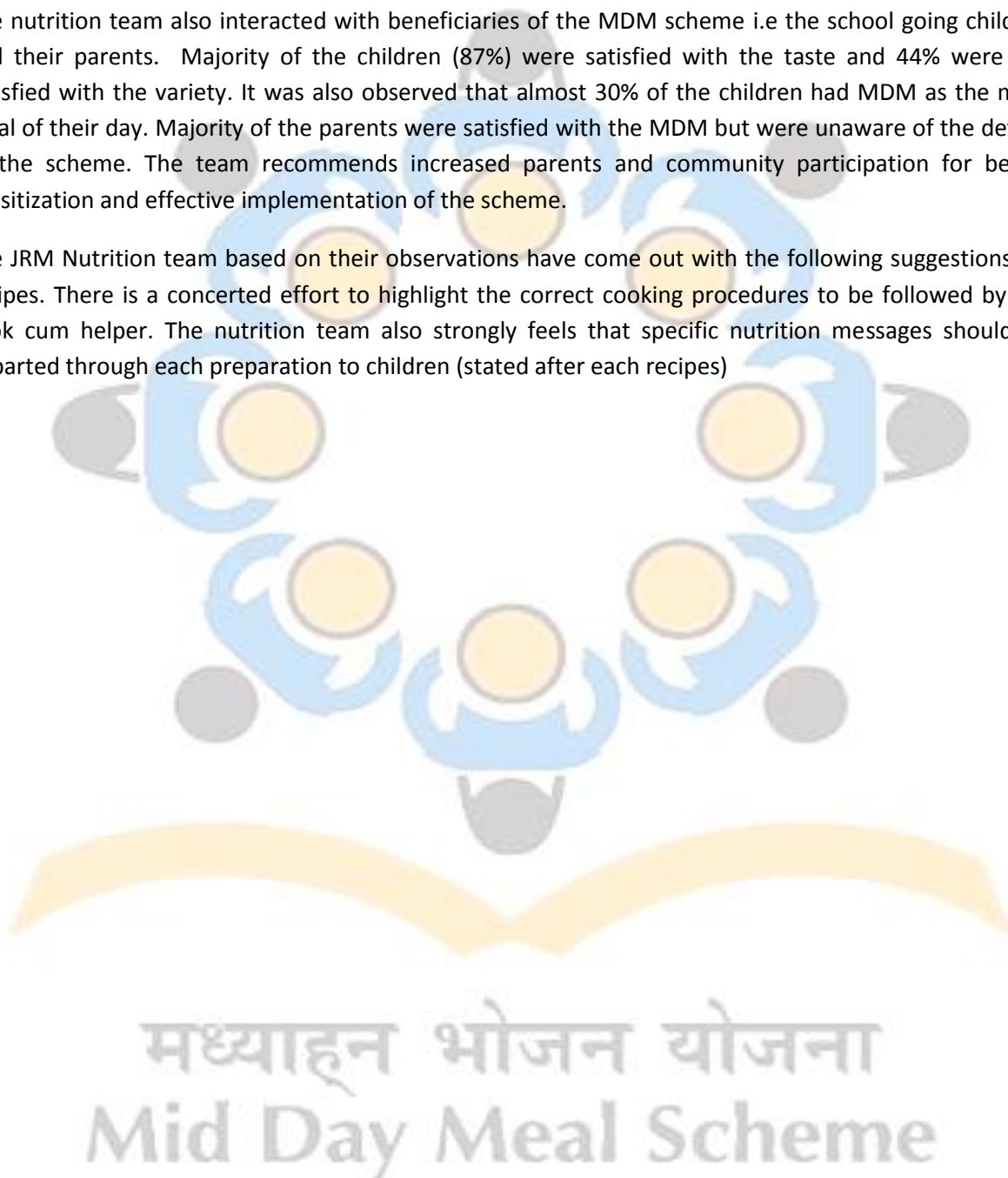
Rating	Score
Like extremely	9
Like very much	8
Like moderately	7
Like slightly	6
Neither like nor dislike	5
Dislike slightly	4
Dislike moderately	3
Dislike verymuch	2
Dislike extremely	1

Appearance of the recipes was liked moderately; texture of the matki usal and khichdi was not accepted very well. The taste of the recipes was liked moderately and the overall acceptability of rice and matki usal was better than the khichdi.

### **Satisfaction of the Children and Parents**

The nutrition team also interacted with beneficiaries of the MDM scheme i.e the school going children and their parents. Majority of the children (87%) were satisfied with the taste and 44% were not satisfied with the variety. It was also observed that almost 30% of the children had MDM as the main meal of their day. Majority of the parents were satisfied with the MDM but were unaware of the details of the scheme. The team recommends increased parents and community participation for better sensitization and effective implementation of the scheme.

The JRM Nutrition team based on their observations have come out with the following suggestions for recipes. There is a concerted effort to highlight the correct cooking procedures to be followed by the cook cum helper. The nutrition team also strongly feels that specific nutrition messages should be imparted through each preparation to children (stated after each recipes)



## SUGGESTED NUTRITIOUS RECIPES

### 1. DALIYA KHICHDI

‘JEVNAAT TRUN DHANYA WAPRUYA, KAMIT KAMI AATHWADYATUN TEEN VELA’

#### FOR PRIMARY SCHOOLS:

S.No.	Food Item	Amounts(gms)	Energy [Kcal]	Protein [gms]
1	Daliya (Lapsi)	75	260	8.85
2	Green gram, dhal(Chilti Moong dal)	25	87	6.125
3	Bottle gourd (Dudhi/Bhopla)	15	2	0.03
4	Potato	15	15	0.24
5	Tomato	15	3	0.135
6	Groundnut (Singdana)	10	57	2.53
7	Coriander leaves (kothimbir)	5	2	0.165
8	Soybean oil	5	45	0
	<b>Total</b>		<b>470</b>	<b>18.075</b>

Spices : Turmeric Powder, Red Chilli Powder, Mustard seeds, Cumin seeds, Garlic, Ginger

#### FOR UPPER PRIMARY SCHOOLS:

#### DALIYA KHICHDI + CHIKKI / FRUIT / GROUNDNUTS / KHARIK / EGG

S.No.	Food Item	Amount(gms)	Energy [Kcal]	Protein [gms]
1	Daliya (Lapsi)	100	323	10.3
2	Green gram, dhal(Chilti Moong dal)	30	29	2.1
3	Groundnut	15	85	3.795
4	Cabbage	15	4	0.27
5	Bottle gourd	20	2	0.04
6	Coriander Leaves	20	8	4.5
7	Soybean Oil	10	90	0
	<b>Total:</b>		<b>541</b>	<b>21.005</b>

Spices : Ginger, Garlic, Red Chilli Powder, Turmeric Powder

#### Method:

1. Soak the cleaned dal and groundnuts in water for 1-2 hours. Preserve the water for cooking.
2. Wash and Clean all vegetables and chop them.
3. In a pan, add the oil, all spices and chopped potato.
4. When half done add soaked moong dal, groundnuts and daliya, sauté it.
5. To this, add water (use soaking water), cover and allow to cook.
6. When half the water is absorbed, add tomato, dudhi salt and cook till done.
7. Garnish with chopped coriander before serving. (Do not allow to cook after adding coriander).

## 2. CHANA MASALA RICE

‘DHANYA MADHE KADDHANYA MISALA, PRATHINACHA DARJA WADHVA’

### FOR PRIMARY SCHOOLS:

S. No.	Food Item	Amount (gms)	Energy [Kcal]	Protein [gms]
1	Rice	75	259	5.1
2	Bengal gram whole(Akkha chana/harbhara)	25	90	4.27
3	Onion	15	8	0.18
4	Tomato	20	4	0.18
5	Potato	15	15	0.24
6	Soybean oil	8	72	0
	<b>Total</b>		<b>447</b>	<b>9.8</b>

Spices : Ginger,Garlic, Red Chilli Powder, Turmeric Powder

### FOR UPPER PRIMARY SCHOOLS:

CHANA MASALA RICE + CHIKKI / FRUIT / GROUNDNUTS / KHARIK / EGG

S.No.	Food Item	Amount (gms)	Energy [Kcal]	Protein [gms]
1	Rice	100	346	7.5
2	Bengal gram whole (Akkha chana / harbhara)	30	108	5.13
3	Tomato	30	6	0.27
4	Onion	25	12	0.3
5	Potato	25	24	0.4
6	Groundnut	10	56	2.53
7	Soybean Oil	10	90	0
	<b>Total:</b>		<b>643</b>	<b>16.1</b>

Spices : Ginger, Garlic, Red Chilli Powder, Turmeric Powder

Method:

1. Clean the chana. Soak it overnight. Keep the drained chana in a muslin cloth for sprouting. If possible use the soaking water to prepare other recipes.
2. Soak the groundnuts in warm water for 30-40 minutes. Preserve the water.
3. Clean and wash the vegetables, rice.
4. Chop the vegetables.
5. In a pan add oil, all spices, chopped onion and sauté.
6. When the onions turn light brown add diced potato, sprouted chana, groundnuts, chopped ginger and garlic, rice, cover and sauté. To this, add water, finely chopped tomato, salt cover and allow to cook till done.



### 3. METHI ZUNKA WITH RICE

'GAAVAAT MILNARI PALE BHAJI ASEL JEVNAAT JAR DARROZ, TAR MILEL SHARILALA POSHAN BHARGOS'

#### FOR PRIMARY SCHOOLS:

S.No.	Food Item	Amounts(gms)	Energy [Kcal]	Protein [gms]
1	Chana Dal (Besan)	30	112	6.24
2	Fenugreek leaves (Methi)	25	12	1.1
3	Soybean oil	8	72	0
4	Rice	75	259	5.1
	<b>Total</b>		<b>455</b>	<b>12.4</b>

Spices : Turmeric powder, Red Chilli, Garlic

#### FOR UPPER PRIMARY SCHOOLS:

METHI ZUNKA WITH RICE + CHIKKI / FRUIT / GROUNDNUTS / KHARIK / EGG

S.No.	Food Item	Amount (gms)	Energy [Kcal]	Protein [gms]
1	Chana Dal (Besan)	45	168	9.4
2	Fenugreek leaves	30	14	1.3
3	Soybean Oil	10	90	0
4	Rice	100	346	7.5
	<b>Total:</b>		<b>618</b>	<b>18.2</b>

Spices : Turmeric powder, Red Chilli, Garlic

Method:

1. Clean the fenugreek leaves very well, wash and chop roughly.
2. Mix the besan (chana flour) in water, breaking lumps formed if any.
3. In a hot pan, add oil, chopped garlic, turmeric, chopped fenugreek. Cover and cook till it softens.
4. Add the besan-water mixture, red chilly powder, salt, cook till it thickens.
5. Serve with rice.

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#### 4. PALAK KHICHDI

'HIRVYA PALE BHAJA WAPRU BHARPUR, JEEVAN SATVA VA KHANIJ MILWU PUREPUR'

##### FOR PRIMARY SCHOOLS:

S.No.	Food Item	Amounts(gms)	Energy [Kcal]	Protein [gms]
1	Rice	75	259	5.1
2	Green gram, dhal(Chilti Moong dal)	25	87	6.1
3	Spinach	25	7	0
4	Tomato	25	5	0
5	Onion	10	5	0
6	Groundnuts	10	57	2.53
7	Soybean oil	7	63	0
	<b>Total</b>		<b>426</b>	<b>6.1</b>

Spices: Jeera, Green chilly, Ginger, Garlic

##### FOR UPPER PRIMARY SCHOOLS:

##### PALAK KHICHADI + CHIKKI / FRUIT / GROUNDNUTS / KHARIK / EGG

S.No.	Food Item	Amount(gms)	Energy [Kcal]	Protein [gms]
1	Rice	100	346	7.5
2	Redgram,dhal (toor dal)	30	100	6.69
3	Spinach	35	9.1	0.7
4	Tomato	25	5	0.225
5	Onion	15	7	0.18
6	Groundnuts	15	86	3.76
7	Soybean Oil	10	90	0
	<b>Total:</b>		<b>643</b>	<b>19</b>

Spices: Jeera, Green chilly, Ginger, Garlic

Method:

1. Clean, wash the dal and rice and keep it aside.
2. Clean and chop the vegetables.
3. In a hot pan, add oil and all the spices.
4. Saute chopped onion and tomato till half cooked. Add drained rice and dal and cook till half done.
5. Add the finely chopped palak leaves, salt, water; cover and cook till done.

Note: Both toor & moong dal can be used in above recipes.

## 5.PAUSHTIK DAL WITH RICE

‘JEVHA KHATA PALE BHAJYA VA DALI EK SANGE, TEVHA MILTI SHARILALA JEEVAN SATVA VA KHANIJE’

### FOR PRIMARY SCHOOLS:

S.No.	Food Item	Amounts(gms)	Energy [Kcal]	Protein [gms]
1	Rice	75	259	5.1
2	Toor Dhal	20	67	4.46
3	Spinach(Palak)	30	8	0.6
4	Tomato	10	2	0.09
5	Onion	10	5	0.12
6	Groundnut	10	57	2.53
7	Soybean oil	5	45	0
	<b>Total</b>		<b>442</b>	<b>12.9</b>

Spices Mustard seeds, haldi, Jeera red chilly powder.

### PAUSHTIK DAL WITH RICE

S.No.	Food Item	Amounts(gms)	Energy [Kcal]	Protein [gms]
1	Rice	100	346	7.5
2	Toor Dhal	30	100	6.69
3	Spinach(Palak)	35	9	0.7
4	Tomato	25	5	0.225
5	Onion	15	7	0.18
6	Groundnut	15	86	3.76
7	Soybean oil	10	90	0
	<b>Total</b>		<b>643</b>	<b>19</b>

Method:

1. Soak groundnuts in warm water for 30-40minutes. Preserve the soaking water.
2. Clean and chop the vegetables.
3. In a hot pan, add oil, all masalas(spices), onion and sauté till pink.
4. To this add the dal , groundnuts and water. Allow to cook.
5. When the dal is half cooked, add chopped spinach, tomato, more water all cook till done.  
To be served with rice.

Note- any leafy vegetable can be added to this.

## 6. VEGETABLE DALIYA

### FOR PRIMARY SCHOOLS:

S.No.	Food Item	Amounts(gms)	Energy [Kcal]	Protein [gms]
1	Daliya (Lapsi)	75	260	8.85
2	Onion	10	5	0.12
3	Groundnut	15	85	3.795
4	Coriander leaves (kothimbir)	5	2	0.165
5	Carrot	15	7	0.135
6	Cabbage	10	3	0.18
7	Tomato	10	2	0.09
8	Soybean oil	10	90	0
	<b>Total</b>		<b>454</b>	<b>13.335</b>

### FOR UPPER PRIMARY SCHOOLS:

#### VEGETABLE DALIYA + CHIKKI / FRUIT / GROUNDNUTS / KHARIK / EGG

S.No.	Food Item	Amount(gms)	Energy [Kcal]	Protein [gms]
1	Daliya	100	323	10.3
2	Cabbage	15	4	0.27
3	Carrot	15	7.2	0.135
4	Tomato	15	3	0.135
5	Onion	20	10	0.24
6	Coriander leaves	10	4	0.33
7	Groundnut	20	113	5.06
8	Soybean Oil	10	90	0
	<b>Total:</b>		<b>555</b>	<b>16.47</b>

#### Method:

1. Soak groundnuts in warm water for 30-40minutes. Preserve the soaking water.
2. Clean all vegetables and chop them.
3. In a pan, add the oil, all spices, onion and sauté till light pink..
4. When half done, groundnuts, carrots and daliya, sauté it.
5. To this, add water (use soaking water), cover and allow to cook.
6. When half the water is absorbed, add tomato, cabbage, salt and cook till done.
7. Garnish with chopped coriander before serving. (Do not allow to cook after adding coriander).

## 7. LAPSI SHEERA

### FOR PRIMARY SCHOOLS:

S.No.	Food Item	Amounts(gms)	Energy [Kcal]	Protein [gms]
1	Daliya (Lapsi)	75	260	8.85
2	Sugar	20	80	0.02
3	Whole milk powder (cow)	10	50	2.58
4	Groundnut	10	57	2.53
5	Soybean oil	5	45	0
	<b>Total</b>		<b>490</b>	<b>14.0</b>

### FOR UPPER PRIMARY SCHOOLS:

#### LAPSI SHEERA

S.No.	Food Item	Amount (gms)	Energy [Kcal]	Protein [gms]
1	Dahila (Lapsi)	100	323	10.3
2	Sugar	20	79	0.02
3	Whole milk powder (cow)	15	74	3.87
4	Groundnut	20	113	5.06
5	Soybean Oil	10	90	0
	<b>Total:</b>		<b>680</b>	<b>19.3</b>

Method:

1. Roast the lapsi along with groundnuts in a pan till light pink using ghee/oil.
2. Dissolve the milk powder in water and heat it, Add to the above mixture.
3. Once the dalia is cooked, add the sugar. Cook till done.

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## 8. GOAD BHAT

### FOR PRIMARY SCHOOLS:

S.No.	Food Item	Amounts(gms)	Energy [Kcal]	Protein [gms]
1	Rice	75	259	5.1
2	Tuar Dal/Mung Dal	25	93	5.2
3	Soybean oil	5	45	0
4	Sugar	20	80	0
	<b>Total</b>		<b>477</b>	<b>10.3</b>

### FOR UPPER PRIMARY SCHOOLS:

#### GOAD BHAT

S.No.	Food Item	Amount(gms)	Energy [Kcal]	Protein [gms]
1	Rice	100	346	7.5
2	Tuar Dal/Mung Dal	30	111	6.24
3	Sugar	25	100	0
4	Soybean Oil	15	135	0
	<b>Total:</b>		<b>692</b>	<b>13.74</b>

Method:

1. Clean and wash rice, dal and keep aside.
2. In a pan, heat the ghee/ oil, add the dal, rice, hot water and allow to cook till done by covering the pan.
3. When fully cooked, add sugar, mix and cook for 5-10 mins.
4. Coconut/raisins/nuts can be added.

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## 9. CHIKKIS ( AS A FOOD SUPPLEMENT)

### FOR PRIMARY SCHOOLS:

#### ROASTED CHANA DAL CHIKKI

S.No.	Food Item	Amount (gms)	Energy [Kcal]	Protein [gms]
1	Roasted chana dal (daal)	15	55	3.4
2	Jaggery	10	38	0
3	Ghee/Soybean oil	4	36	0
	<b>Total</b>		<b>388</b>	<b>3.4</b>

#### GROUNDNUT CHIKKI

S.No.	Food Item	Amount (gms)	Energy [Kcal]	Protein [gms]
1	Groundnut (shengdana)	15	85	3.8
2	Jaggery	10	38	0
3	Soybean Oil	4	36	0
	<b>Total:</b>		<b>159</b>	<b>3.8</b>

### FOR UPPER PRIMARY SCHOOLS:

#### ROASTED TIL CHIKKI

S.No.	Food Item	Amount (gms)	Energy [Kcal]	Protein [gms]
1	Til seeds	25	140	5.6
2	Jaggery	20	76	0
3	Soybean Oil	5	45	0
	<b>Total:</b>		<b>261</b>	<b>5.6</b>

Procedure for above recipes:

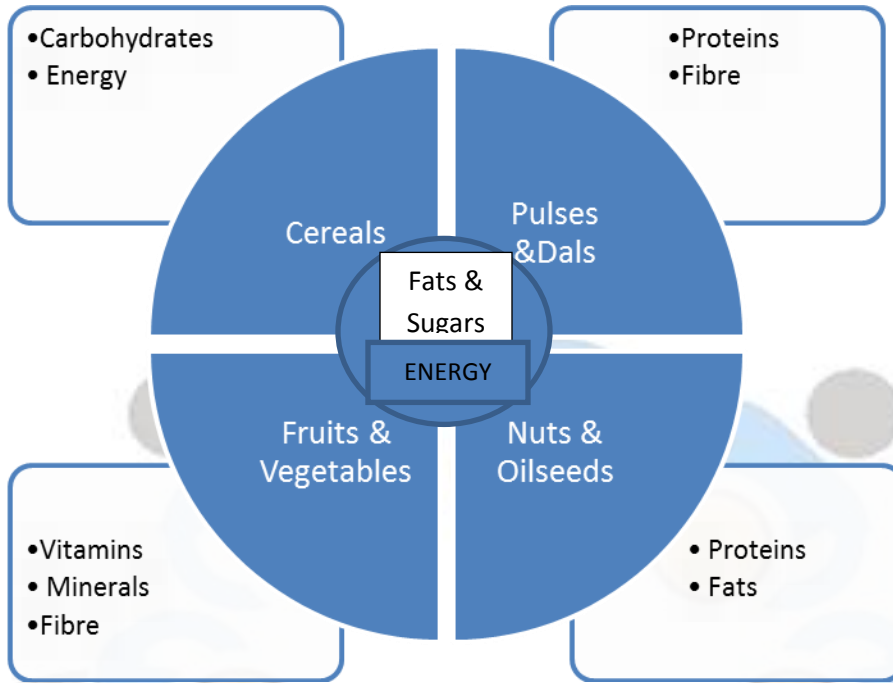
1. Grease a thali with little ghee/oil. Heat the remaining ghee/ oil in a kadhai/ pan..
2. Add jaggery, allow to melt.
3. Add roasted chana dal or roasted coarsely crushed groundnuts or roasted til to this; mix thoroughly and quickly.
4. Immediately transfer to greased thali and spread it evenly when hot. Cut into 2-3 small pieces before the jaggery hardens.
5. This can be used a supplementary food.

Note : Roasted chana dal, Groundnuts, Til can be used interchangeably or in combination.

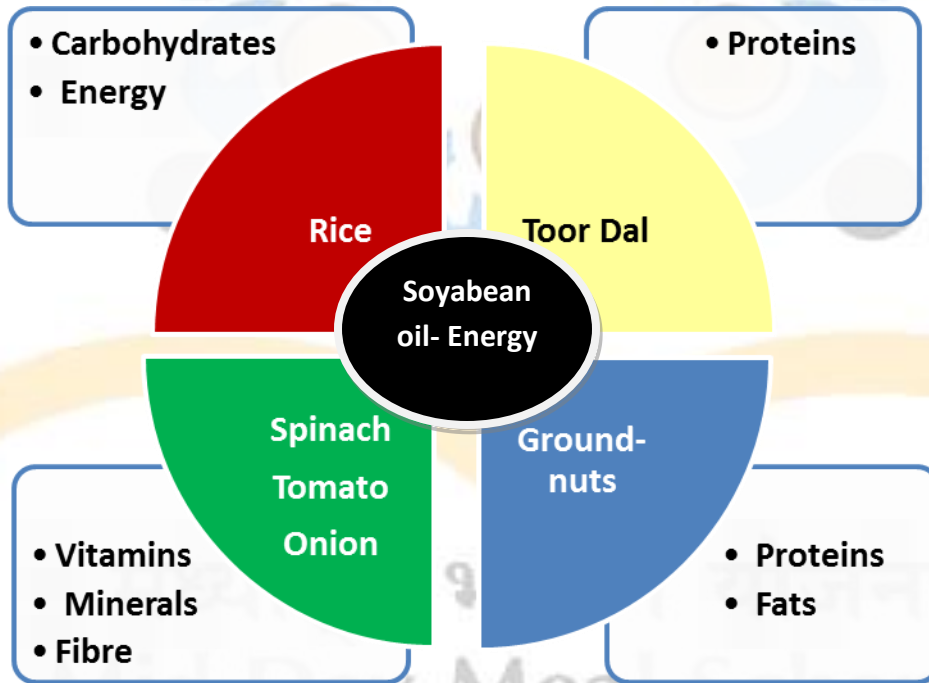
## **Recommendations of the JRM-Nutrition Team**

1. The quantity of rice recommended as per the norms for the primary and Upper Primary school going children should be reduced to 75 gms and 100 gms respectively. The reduction in the quantity of rice should be compensated by increasing the quantity of pulse and nuts to make up for the calories and proteins. This will help to increase the nutrient density per portion served and minimize the wastage. It has been observed that the excess of rice has led to many malpractices besides the wastage.
2. The Mid Day Meal Menu should have more variety and nutrient density per portion. The JRM- Nutrition team recommends implementation of the suggested recipes in a phased manner within 3 months of the submission of the report.
3. An effort should be made to “identify region specific clusters” keeping in mind the logistics of effective delivery systems for centralized cooking facility. This would help to improve the infrastructure in terms of storage, preparation area, hygiene and sanitation and effective monitoring.
4. The JRM team places on record its appreciation in terms of fabricated kitchens in Buldhana and Ahmednagar districts. The team would like to add that adequate number of serving plates should be made available in the schools for serving the Mid Day Meal.
5. The JRM Nutrition team recommends to use the Mid Day Meal as a medium to impart Nutrition Education to children, teachers and parents. Health and Nutrition education should become an integral part of the scheme. The schools should be encouraged to organize health melas, cooking competitions and pro-active parents and community participation. The team has indicated important nutrition messages along with specific recipes recommended for implementation.
6. The team has also developed a FOOD SQUARE TEMPLATE to be used as a nutrition education tool for school teachers to sensitize school children with regards to Nutritious Meal. The team recommends that the tool should be customized region specific, made children friendly and translated in Marathi and circulated to all MDM centres in Maharashtra.

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E.g. Paushtik Dal with Rice



7. The Mid Day Meal Program is routed through schools so that correct nutrition messages, good eating habits and hygiene and sanitary practices are imparted and inculcated in children. The team strongly recommends availability of adequate water, adequate hygienic and sanitary toilet facilities and safe drinking water for the school going children.



**Taking Feedback from the parents**

8. The cook-cum-helper should be sensitized to good hygienic practices including wearing of aprons, gloves and understanding the significance of correct cooking procedures. The team recommends the usage of stainless steel containers for storage, specially of the leftover unused oil.



**Cook-cum-Helper without Apron and Gloves**

9. The height and weight data of school going children should be effectively documented and compiled on a periodic basis to track growth as well as contribute to the National Database to come out with Percentiles of BMI for Indian children.

10. The JRM Nutrition team should involve state specific Nutrition Expert for a continued association in terms of follow-up and intervention.

11. The distribution of Dietary Supplements, Iron-Folic Acid Tablets and De-Worming Tablets should be done with adequate coverage and understanding. The grass root workers should be sensitized about the dosage, indications and contraindications of usage.



## **Recommendations for the administration and implementation of MDM scheme:**

- i) The State may set up administrative structure with dedicated staff exclusively for Mid Day Meal Scheme.
- ii) Too many intermediary levels may be reduced for ensuring quick release of funds to the implementing agencies.
- iii) Alternatively the State Government may adopt Andhra Pradesh Green Channel Scheme for ensuring the availability of one months requirement of funds with the implementing agencies at the beginning of each month.
- iv) The State Finance Department (SFD) may be approached for seeking release of entire recurring central assistance of Rs.442. 44 Cr.
- v) The State Department of Education & Sports may release cooking cost at norms revised with effect from 01.07.2013 (Rs. 3.34 and Rs. 5.00 per child per school day for primary and upper primary respectively).
- vi) Standard Operating Procedure (SOP) for food grain management up to school/implementing agency level may be prescribed for ensuring that one months buffer stock of food grain and sufficient stock of other ingredients is available in the schools/implementing agencies..
- vii) Reasons for interruption may be investigated and instructions may be issued to the implementing agencies to avoid recurrence of interruptions in future.
- viii) Bins may be provided for the storage of Food grains under safe and moisture free conditions.
- ix) FIFO (First in and First Out) system may be followed in the utilisation of oil and other ingredients before their prescribed shelf life or 'best before use' period. Cooks and Helpers should be sensitized to 'First in First out' principle.
- x) Buldana district authorities may be advised to follow approved food norms and provide pulses and oil as per the MDM guidelines. The reduction @ 5 grams in the quantity of pulses for primary as well as upper primary classes may be restored immediately. Similarly, the reduction in the quantity of oil may also be restored immediately.
- xi) Convergence with State Health Authorities may be strengthened for ensuring effective implementation of School Health Programme.
- xii) Action Plan may be drawn up with the time lines for construction of kitchen-cum-stores for which central assistance has already been received by the State Government.

- xiii) The modalities of sharing of funds between the Management of Government aided schools, State Government and Central Government may be decided so that the proposals for the release of central assistance for the construction of kitchen-cum-stores in the Government-aided schools is considered by MHRD.
- xiv) The Annual and Monthly entries in the MIS web portal should be completed in a time bound manner.
- xv) All the vacancies up to Block level may be filled up urgently.
- xvi) Usage of LPG and smokeless chullas in the schools should be encouraged. to prevent health hazards to cook-cum-helpers
- xvii) Community participation should be encouraged for ensuring transparency and accountability in the scheme.
- xviii) Toll free numbers may be painted in all the districts for Grievance Redressal.
- xix) Awareness about the scheme may be generated through advertisement and publicity on the entitlements of the children under food norms. Logo and menu should also be displayed prominently in the school. SCERT may include a curriculum on Mid Day Meal.
- xx) Emergency Plan may be finalized along with the “Dos and Don’ts” in case of emergency. The Public Health Centres should also be equipped suitably to handle cases of food poisoning or any untoward incident in the school.
- xxi) State Level Joint Review Missions may be constituted to visit the poor performing districts in the State.
- xxii) Social Audit may be encouraged through participation of community so as to bring transparency and accountability in the scheme.
- xxi) Field Level Inspection may be encouraged for the vigorous monitoring of the scheme so that the chances of interruption in the scheme are avoided.
- xxiii) The Inspection Proforma may be standardised to elicit information on various indicators.
- xxiii) MDM ranking of the districts may be undertaken on the basis of the achievement under key indicators such as coverage of children, availability and utilisation of funds, food grains, infrastructure, payment of honorarium to cook-cum- helpers, safety & Hygiene.
- xxiv) Empty Gunny bags may be collected from the schools and auctioned collectively. The revenue generated through the auction may be ploughed into the scheme.



The 5<sup>th</sup> JRM Team, Maharashtra 2013

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Standing (L to R) [1<sup>st</sup> Row]: Dr Mridula Sircar, Mrs.Ruby Sound, Ms Amruta Paradkar, Ms Princee Kalra, Mrs. Neha Tembe, Shri. K K Sharma

Standing (L to R) [ 2<sup>nd</sup> Row ] : Shri. Mahesh Palkar, Shri. Prakash Sabale, Ms Poonam Shah.





The action taken report may be submitted to MHRD within three months from the date of submission of report.

J Madan  
9/10/2013  
Dr. Jagmeet Madan

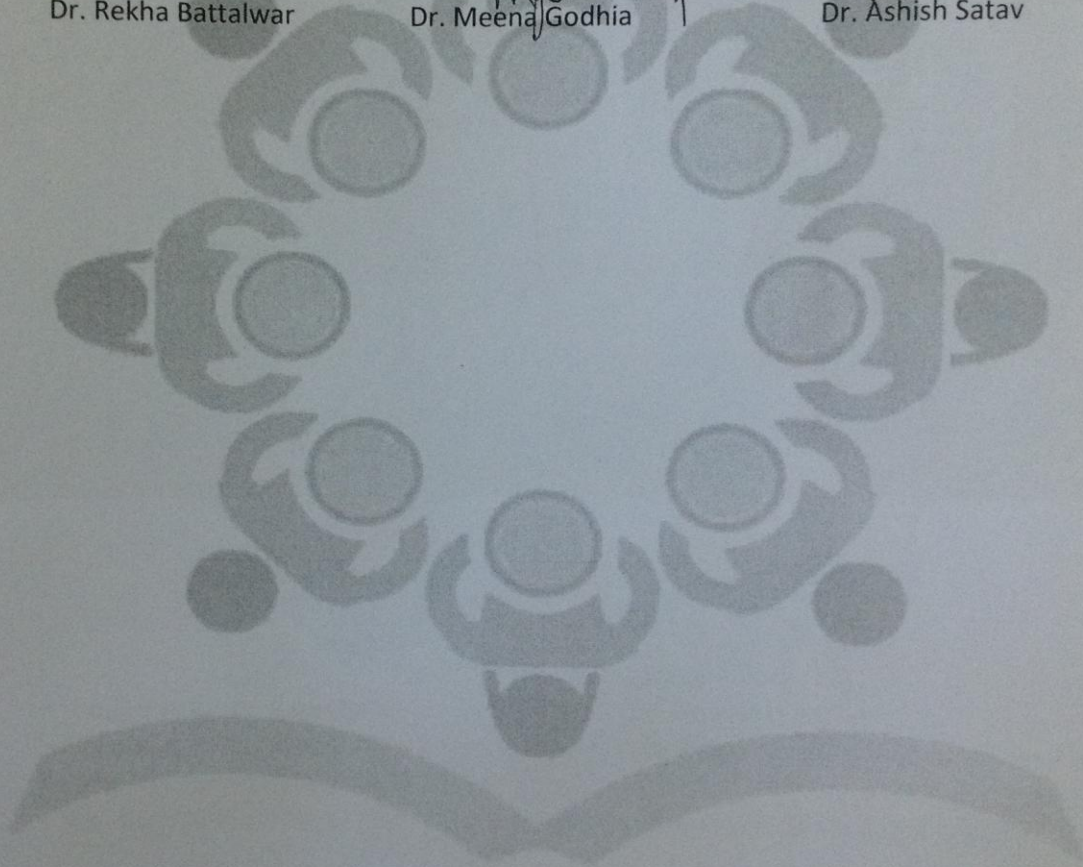
BDS  
9th Oct 2013  
B. D. Shivani

Mahaveer Mahe  
9/10/2013

R. Battalwar  
Dr. Rekha Battalwar

M. Godhia  
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Dr. Meena Godhia

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Mid Day Meal Scheme