

# Mid Day Meal Automated Reporting & Management System (MDM ARMS): Ensuring Quality And Efficient Management

The Mid Day Meal Scheme is one of the most well-known schemes initiated by the Government of India. NIC, Himachal Pradesh has taken the initiative to push the efficiency of the scheme to the next level using ICT by creating the MDM-ARMS software and a related mobile based App to improve the management of the scheme at the State as well as the District level.

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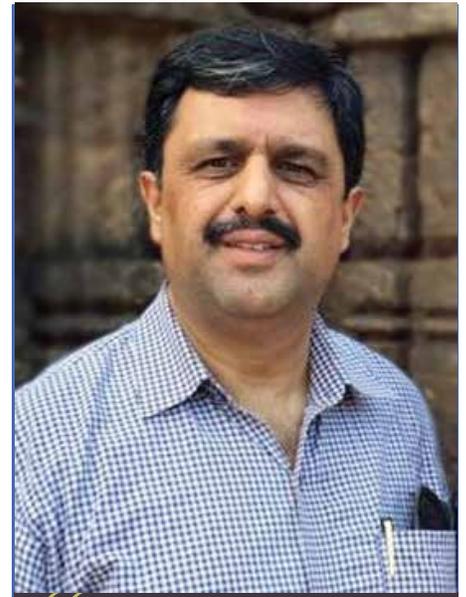
With a view to enhancing enrolment, retention and attendance to schools and simultaneously improving nutritional levels among children, the National Programme of Nutritional Support to Primary Education (NP-NSPE) was launched as a Centrally Sponsored Scheme on 15th August 1995. Since then, the scheme has undergone many changes over the years and is now known as “National Programme of Mid Day Meal in Schools”.

Over 10 crore eligible school children in almost 11 lakh schools benefit from the MDM Scheme. In order to efficiently manage the enrolment and meals being served in the Schools of various States, the MDM-ARMS software has been developed as a product so that any State Education Department can use it. The data collected will be reflected on the National Portal on daily basis.

## MDM-ARMS SOFTWARE

The primary objective of MDM - ARMS software is the instant reporting of meals served in various schools of the State/ Country, primarily through SMS from the mobile phones of teachers on the Nationwide Toll-free Number 15544. This toll-free number is available across all mobile service providers for the country and no charges are levied to the registered teachers for sending the mid-day meal data through SMS on this number.

The software has been designed and developed by NIC Himachal Pradesh State Centre in consultation with the Departments of Elementary Education, Himachal Pradesh and Department of School Education and Literacy, MHRD, GoI, NIC teams in MHRD and HQs.



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We have benefitted extremely from the project as we get the daily meals served information on regular basis through the MDM software at Nil cost and can alert the defaulters to send information during the day time. In addition, we also come to know of the schools where funds or ration are an issue so that they can be provided with funds and rations, on priority. The NIC Himachal Pradesh has done a commendable job in a very short time

**MANMOHAN SHARMA, HPAS**  
Director, Elementary Education  
Himachal Pradesh

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## SOFTWARE FEATURES

- Easy onboarding for other States
- Data collection through different modes of SMS, Mobile App, Web
- Multi-lingual, Hindi and English labels already provided
- Checks on the quality of data being reported
- Generation of Auto-alerts to ensure that the data is reported by all schools
- Generalised Web-based software for creation of Master data and its management
- Exception reporting in case of erroneous data reporting
- Inspection reporting for cross checking of reported data
- MIS reports and graphical dashboard
- State Instance available on the direct URL like <http://mdmhp.nic.in/chandigarh>
- Data transfer to National portal in pre-defined formats at regular intervals

## STEPS FOR ON-BOARDING

(Information on pre-requisites is available under FAQs section on <http://mdmhp.nic.in>)

- Download and fill the Onboarding form, send through Email
- Work out the SMS (Push-Pull) cost based on the number of schools in the State and generate PI through NICS I for the same, Release payment to NICS I
- Collect and Port master data using pre-defined Excel Sheet available on the website
- In case of any local language, please get the labels/ error messages entered into the software
- Use training videos, user manual to impart training to MDM Coordinators and Respondent teachers.

## TECHNOLOGY

- Cloud hosted at <http://mdmhp.nic.in> with State specific URLs
- Developed as a product, multi-lingual,

security audited

- SQL Server 2012 and .NET MVC technology
- NIC SMS Gateway costing through NICS I
- Android based Mobile App (multi-lingual) for monitoring purposes
- Postgres 9.1 database with PostGIS

## MOBILE APPLICATION



The web-enabled software is supported with an Android based mobile application which is quite useful for monitoring the daily data submission status and sending alerts to the defaulting respondents. The MDM App also has feature to send daily data of the respondent's mapped schools using the SMS feature of the mobile in place of Internet. The Internet is only required for authentication and then fetching the relevant records in the App as per User role. Other features include:

- Generalized App, not requiring any local customization as it is synchronized with the web application and get labels/ data etc from the data already entered in the software (in any language).
- Multi-lingual app, language can be changed in the App itself
- MDM daily/ monthly data reporting without Internet connection through SMS
- No need to compose SMS
- SMS to respond to defaulting Teachers/ Cluster Heads/ BEOs/ DDs through App
- App available through Google Play Store so user are notified of the updates immediately, whenever a new version of the App is released.

## GIS-VISUAL MAPS

- State wise District Boundaries layers to be provided by respective States
- GIS parameter of School Longitude and Latitude - mapping required in master
- District wise MDM meal server maps along with school data
- School wise meal served GIS maps with in a district
- Search nearby school within a given radius of reference school along with its distance.



The backend software comprising of a number of master tables for storing location, school, teachers, MDM data, alerts, monitoring tools, direct entry of meals data, graphical reports, interfacing with the mobile App, GIS reports etc.

## IMPLEMENTATION STATUS

Presently, 12 States/ UTs of the country have come on board, out of which 6 States/ UTs of Himachal Pradesh, Rajasthan, Mizoram, Uttarakhand, Daman and Chandigarh have implemented the software. The other states of Haryana, Madhya Pradesh, Nagaland, Meghalaya, Chhattisgarh and Telangana have come on board and shall start using it.

For further information, please contact:

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