

Case Study

Naandi Foundation

The Midday Meal Programme

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Governance Knowledge Centre

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Executive Summary

The Midday Meal Programme (MDM), implemented in 1995 by the Government of India, involved the provision of one wholesome meal per day, free of cost, to children enrolled in public schools. Although well intended, the broadly defined policy left a great deal of scope for improper implementation. Hence, a revised policy in 2001 made it compulsory for the meal to be a hot cooked one. It was left up to the states to determine the mode of implementation.

In 2002, the Government of Andhra Pradesh asked Naandi Foundation, an established not-for-profit organization to develop a system to administer the MDM programme in Hyderabad. It is from here that Naandi began its work with the objective of providing hot cooked meals to children in government schools six days a week and ultimately, addressing the problems of malnutrition and school enrolment.

Naandi extended its corporate founding principles of economies of scale and performance management to the execution of their MDM programme. It developed partnerships with various organisations and combined the best of all their knowledge into facilitating the programme. Overcoming initial operational challenges that stemmed from such a large scale delivery of meals, Naandi set up its first central kitchen in Hyderabad in 2003 with a committed set of kitchen staff and managers. It went on to develop standardised procedures of preparing, packaging, transporting and delivering meals, all supported with proper monitoring and feedback mechanisms using state-of-the-art technology.

Naandi's aim, however, was not just to ensure that meals reached the students, its central focus was on making meals nutrient and mineral rich. It sought to do this by building partnerships and alliances to fortify meals or add essential micro-nutrients in the grains used for preparation. After experimenting with various fortified foods, Naandi concluded on wheat flour and soya dal analogue which were mixed with regular wheat and dal respectively.

In a period of seven years, Naandi has come a long way. It has now successfully replicated its model, providing nutritious and tasty (according to local standards) meals to over one million children across five states (Andhra Pradesh, Madhya Pradesh, Rajasthan and Chattisgarh).

This report aims to present the basic features and functioning of the Naandi MDM programme by highlighting its evolution over time, uniqueness, achievements, challenges faced and its overall impact. Its objective is to provide assistance in the replication of programmes with similar goals in order to contribute towards overall better public service delivery.

Background

Midday Meal Scheme

Hunger, malnutrition and illiteracy are a few of chronic problems in India. In 1995, the Government of India decided to address two correlated social problems - hunger and school attendance - through the launching of the National Programme of Nutritional Support to Primary Education, also called the Midday Meal Scheme. The legislation mandated that children of poor families, who enrolled in public schools¹, get one wholesome meal a day, free of cost. It was felt that this would not only incentivize parents to send their children to school, but also motivate children to learn a greater deal from their lessons.

The legislation did not specify the mode of meal delivery, therefore each state took on an individualized approach. Many states simply transferred the raw grains provided by the Food Corporation of India (FCI) directly to parents since additional infrastructure would not be required with this option. However, this undermined the purpose of the programme to increase school attendance. It also failed to effectively provide food to children because household allocation could result in for instance, the distribution of food to boys but not girl children.

Subsequently, the Supreme Court of India revised the legislation in 2001 to require provision of a hot cooked meal to students in government and government funded schools every school day. The requirement to feed millions of children has proved difficult and the implementation of the MDM programme has remained faulty especially in urban areas.

In rural areas of Andhra Pradesh, the programme ran informally by women self help groups within the school premises. These groups would often involve the mothers of the students, in hopes of making the meals reliable and consistent. In urban areas, however, there remained an absence of an established network of self help groups. Moreover, schools were notoriously poor and overcrowded, with no space for safe cooking. The solution lay in building a strong delivery partnership which is where the NAANDI Foundation stepped in. Naandi in Sanskrit means 'dawn' or a 'new beginning' and this is what it sought to do with the MDM programme.

NAANDI Foundation

Naandi Foundation is an autonomous, not-for-profit trust dedicated to changing the lives of the underserved populations in India. Established in 1998, Naandi aims to build alliances

¹ 60 % of India's children attend public schools.

between state governments, corporates and civil society to co-create innovative strategies to eradicate poverty.

Guiding Naandi in its initiatives is its board of trustees chaired by Dr. Anji Reddy, Chairman of Dr. Reddy's Laboratories Ltd. Other board members include eminent industrialists and leading economists, including Mr. Anand Mahindra, Vice Chairman and Managing Director, Mahindra & Mahindra, Dr. Isher Judge Ahluwalia, Chairperson, International Food Policy Research Institute and Mr. Rajendra Prasad, Chairman and Managing Director, Soma Enterprise Ltd.

Naandi's main area of operations include: Child Rights, Safe Drinking Water and Sustainable Livelihoods. When the Supreme Court mandate was passed in 2001, the government of Andhra Pradesh approached Naandi Foundation, which had experience in running outreach programs in the schools.



Figure 1: Naandi Meal – Plain rice, tamarind rice, sambhar, sweet rice

In 2002, Naandi signed a Memorandum of Understanding (MoU) with the Government of Andhra Pradesh to develop a system to administer the MDM programme in Hyderabad. This brought with it the responsibility to create a central kitchen with the latest in kitchen automation to prepare and distribute nutritious meals to one lakh fifty thousand children everyday.

Objective

Under the ambit of the MDM scheme, Naandi aims to prepare and distribute the midday meal to government school going children in cities. It seeks to make these meals nutritious by adding adequate supplements.

In this way, it hopes to achieve the broader goal of the MDM scheme which is to simultaneously address the problems of hunger and school attendance.

Working Design

Setting up the kitchen

By February of 2003 Naandi began operationalizing its first kitchen in Uppal. Keeping in mind the very purpose of a hot cooked meal, Naandi built a modern centralized kitchen with a factory-like design based on automated production practices. Hygiene and efficiency were considered central to kitchen operations.

The initial investment made in setting up the centralized kitchen mainly included the cost of equipment - rice and wheat cleaning equipment, steam engines, a water softener and storage tanks. Land, typically about two acres, was provided by the government.

Operating costs include food materials, water and electricity, staff salaries, pest control, security and transportation of the meals. The local government supplies Rs 3.5 per hot meal delivered which is intended to cover operating costs.

Kitchen Staff and Functioning

Kitchen staff is hired by Naandi and includes a kitchen manager, cooks, helpers, assistants and route coordinators. The staff for pest control, security and transportation of meals is typically all outsourced.



Figure 2: Steam engines in the Naandi kitchen

Kitchen operations begin at 3:00 am with the procurement and chopping of fresh vegetables. From 3 to 6 am, masala is prepared while rice and curry are cooked. The meals are cooked and packaged by 9:00 to 10:00am. Rice is prepared for the following day by refining the grains by machine and cleaning by hand, with salt and water. Following this, the housekeeping staff thoroughly cleans the kitchen using high-powered sanitation machines. Housekeeping

activities end by 2:30 to 3:00 pm.

Fortification

The purpose of Naandi's MDM programme is not simply to prepare and provide hot cooked meals. Its main aim is to improve the nutritional value of meals through fortification with Iron, Zinc and Folic Acid. Naandi originally began by preparing regular meals, however quickly realized that it was not addressing the problems of vitamin and mineral deficiencies. As such, Naandi partnered with Global Alliance for Improved Nutrition (GAIN) to address this shortfall through food fortification. After piloting fortification processes with various products, it was found that soya dal analogue was the most feasible option to mix with normal dal. Soya dal analogue contains 60 percent soya dal and 40 percent wheat, which is powdered and extruded in the form of conventional dal. Soya dal is mixed with regular dal to increase the overall nutritional value of the meal.

Preparing the meal

The daily operations of Naandi's centralized kitchen are optimized to enable preparation of large volumes of meals in short periods of time.

Procurement of food grains

Rice or wheat, depending upon the local diet, are delivered free of cost by the FCI from government stocks. The fortified soya dal is supplied by Faith Foods² to Naandi below the market price. All other ingredients such as vegetables, oils, condiments and masala are procured locally by the kitchen manager on a daily basis, reducing food storage and refrigeration costs.

Cooking

Once the food grains arrive at the kitchen, the step-by-step preparation begins. The kitchen is setup in such a way that there is a separate section for each activity. The first step is to separate stones and other such particles from the rice stock received. This is done with a customized machine installed in the first section of the kitchen. The second step is to recheck the rice stock by cleaning it manually (this is the only procedure that is done by hand).

² GAIN approached Faith Foods, an Indian food manufacturer, to co-create a version of the soya dal analogue fortified with iron and folic acid and to supply it to Naandi.

From then on, the cooking begins. The meal includes a variety of rices (tamarind, tomato, biryani and plain), sambhar with fortified soya dal and grated vegetables, and a nutritional add-on (boiled egg, biscuits or a fruit, mostly bananas) twice a week.



Figure 3: Kitchen staff cooling the rice

are in place to cool off the rice before packaging. Cooling is necessary to prevent the rice from smelling or becoming sticky.

The dal/sambhar/curry are boiled and stirred in two different vessels. State-of-the art dicing machines are used for cutting the vegetables, which are then grated and mixed with the sambhar. The seasoning is prepared separately and later added to the dal/sambhar/curry,

making it easier to clean and maintain the large cooking utensils.



Figure 4: Kitchen staff member preparing eggs

delivery from the kitchen to the classroom.

Packaging

After the meals are prepared, they are packed for distribution. The food is packaged in metal canisters (similar to those used for milk) designed to keep the meal warm. Each canister carries enough food to feed around 100 children. Other varieties of canisters are used for rice and sambhar. After filling the delivery canisters, they are sealed to ensure safe

Once trucks are loaded, route coordinators verify the number of food canisters against the corresponding truck log, which indicates the authorized amount of food for every delivery route.

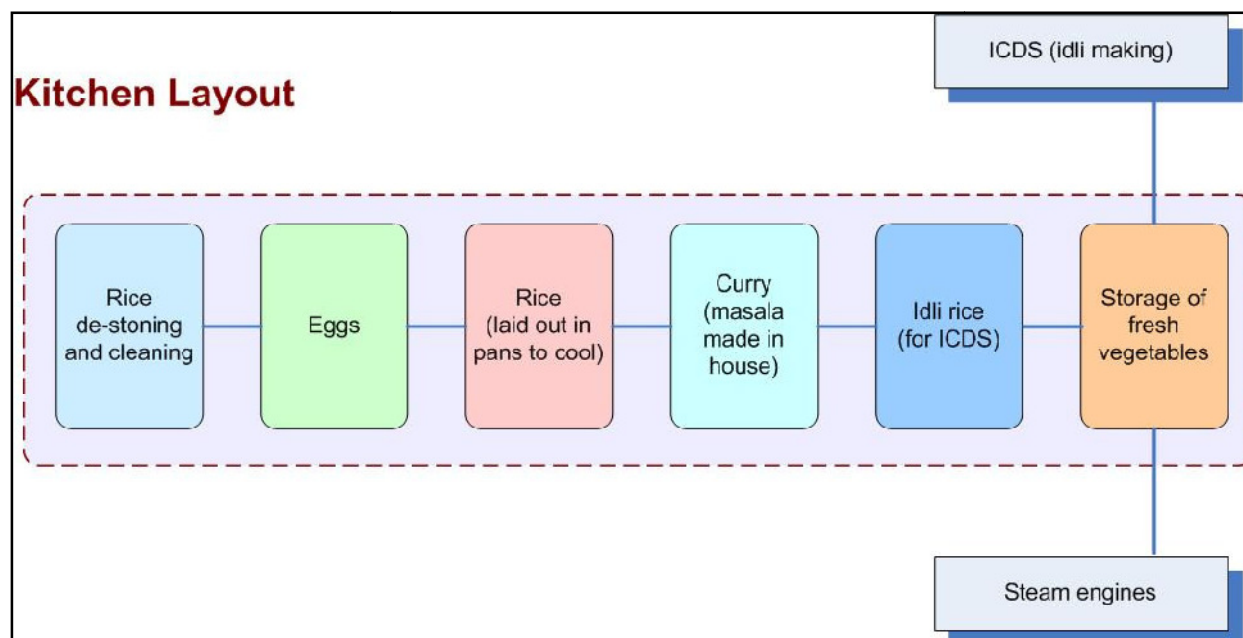


Figure 5: Naandi kitchen layout

Transportation and Delivery

Naandi's delivery of midday meals currently follows 74 routes. These routes were designed through extensive planning; test runs were executed to determine the fastest route during traffic that meals could be delivered while still hot.

The driver, the helper (lifter) and the route coordinators ensure that the food reaches the school safely and on time (around 12:30 pm) from Monday to Saturday. Upon arrival, school principals sign a register to confirm the receipt of their designated allotment. On the way back to the kitchen, truck teams collect empty canisters for cleaning and next day's use.

Monitoring

Through various monitoring efforts, Naandi ensures a high level of accountability. Route coordinators are crucial to managing the programme in a transparent manner. During their weekly school visits, route coordinators gather feedback from principals, teachers, and students about the quality, quantity and timeliness of meals. This feedback mechanism helps to improve Naandi services.

Naandi officers facilitate periodic meetings with school administrators, district government and education officials to discuss the feeding programme and any adaptations that need to be to the meals.

Apart from internal monitoring done by Naandi, government officials also partake in the process through unannounced inspections at kitchens and schools.

Methodology

Identification as a Best Practice

There are certain definitive criteria for selecting a best practice. Namely, an initiative that is citizen centric and aims at improving public service delivery, is replicable, is economically and socially sustainable, and has had a substantial impact over time. Keeping this in mind, researchers sought to first establish the suitability of Naandi's MDM program for best practice documentation. This was done through secondary research.

Secondary Research

Researchers searched online for existing information on Naandi's initiative. Some of the sources found included annual reports from Naandi Foundation, news stories and publications written by key stakeholders and third party institutions.

From these sources, researchers determined that Naandi's MDM programme fulfilled the requirements for best practice documentation. Furthermore, most of the sources found left scope to prepare a complete best practice document. The research team identified the key stakeholders and their roles and prepared an early draft of the initiative in terms of its background, objective and achievements. A detailed questionnaire was prepared for the various stakeholders, in preparation for a field visit to validate operations.

Primary Research

Locations of key stakeholders were identified and interviews began with those in New Delhi.³ Researchers then travelled to Hyderabad to interview the remaining stakeholders about their involvement with the MDM program. Semi-structured interviews were carried out focusing on the genesis, the evolution of the program over time, its features and uniqueness, achievements and challenges and the future course of action.

³ The research team is based in New Delhi.

The visits to the kitchen and schools and interviews with Naandi officers, school teachers, children, and involved government officials helped researchers verify through primary research the suitability of documenting Naandi's MDM programme.

Documentation

Analysis of the qualitative and quantitative data collected in the field and at the desk, was carried out with the goal of holistically presenting Naandi's MDM programme as a 'Best Practice' in public service-delivery. The prepared document aims to assist in replication efforts and knowledge building in the arena of good governance.

Key Stakeholders

Officials at the Department of Education, Government of Andhra Pradesh, managers from Naandi Foundation, experts from GAIN, teachers and students receiving the midday meal were interviewed by researchers. The following is a summary of the findings.

Department of Education, Andhra Pradesh

The Ministry of Education in Hyderabad is responsible for ensuring the efficient functioning of the MDM programme in Andhra Pradesh. Outlining the reasons for selecting Naandi as a delivery partner, Mr. V. Madhusudan who was at that time the project coordinator, told researchers that the lack of self-help groups in urban areas and constraints of space and time prompted them to adopt a centralized kitchen model. They approached Naandi for the same, because it had a proven track record through its previous school outreach programs.

Mr. Madhusudan stresses that the biggest challenge was to convince officials at all levels to get Naandi involved in the implementation process of the MDM. There was deep resistance to change, however, it was overcome gradually and in a phased manner.



Figure 6: Teacher serving Naandi's midday meal

Mr. Madhusudan highlighted the ability of the MDM programme to improve the student retention rate. He also stressed the positive indirect effect of students bringing along their siblings to school to feed them.

Naandi Foundation

Naandi Foundation has been implementing the MDM programme in Hyderabad since 2002. Today, Naandi provides nutritious meals to over one lakh fifty thousand students in the city. It has also opened kitchens in four other Indian states: Rajasthan, Madhya Pradesh, Chattisgarh and Orissa.

Naandi's midday meal manager, Leena Joseph, talked passionately about the MDM programme: *"when we started this program, there was only one thing that my husband asked me to keep in mind, that is to give these children the kind of food, which I would give to my own children,"* recalled Leena. It was just a matter of time before the programme got on track and in informal settings, people began referring to the children as 'Leena's Children'.

In the beginning, Leena and her team visited large kitchens⁴ to understand how to meet the goal of feeding such a large number of children on a daily basis. Technical expert advice was sought out to learn about steam-based cooking, kitchen outlay and equipment, meal menus, development of transport routes and standardized procedures for preparation of the meal, packaging, delivery and monitoring.

There has been a marked improvement in operations over time. At first, only basic rice and sambhar was served. Leena and her team moved on to a more varied and nutrient rich menu developed according to local taste. An important aspect was the inclusion of fortified products in the meal in partnership with GAIN, aiming to correct nutrient deficiencies.

Naandi's success lies in the organization's ability to partner with actors from a variety of sectors and employing their individual knowledge as the programme expands. The corporate founders of Naandi supplied the organization with standard business principles including strategic supply chain management, economies of scale, and performance management, which are not often areas of focus in the non profit sector. Some board members of Naandi provide funding, while others connect Naandi with corporate donors and leading management practitioners. Governance by professionals builds organizational credibility and has helped in building the foundation's reputation. As Naandi grew its MDM operations beyond Hyderabad, it maintained and expanded the types of private sector relationships that were instrumental in the organization's founding.

Global Alliance for Improved Nutrition (GAIN)

In order to address vitamin and mineral meal deficiencies, Naandi partnered with GAIN, a Swiss foundation whose mission is to reduce malnutrition through food fortification, provision of nutrients supplementation tablets and improve the health and nutrition of populations at risk. GAIN currently operates in Africa, South Asia, Southeast Asia, Latin America and the Caribbean. It hopes to use private sector strategies to reach out to more than one billion people in its fight against under-nutrition.

⁴ Such as those run by religious institutions and catering colleges.

Together, GAIN and Naandi devised a fortification model that prioritized innovation, simplicity, and affordability. Dr Sadhana Bhagvat, the Program Associate for GAIN in South Asia noted that the easiest and most cost-effective way to improve a student's diet was found to be augmentation of the nutritional content of meals. Different fortification techniques were used in different states depending upon the staple diet. For northern states, a wheat fortification process was implemented, wherein Naandi installed machines for adding the nutrient powder during milling.

For the southern rice-eating states, an alternative fortification vehicle was needed. Meanwhile, in the interim period, fortified biscuits in partnership with Britannia Industries Ltd. were supplied as a complement to Naandi meals.⁵ The experiment was not very cost effective, therefore, Naandi has since moved away from the fortified biscuits. In search of a more viable fortification vehicle, the Ultra Rice⁶ supplement was introduced in Naandi's Vishakapatnam kitchen; however the whole process proved time consuming and did not result in as much output as was expected. In time, the low cost protein enriched soya dal analogue used today was formulated.

GAIN provided Naandi with technical, operational and financial assistance. The partnership which was initially until August 2009, has been extended for another year. GAIN also conducts periodic monitoring of fortified meals. By working with GAIN, Naandi greatly expanded its network and benefited from GAIN'S vast knowledge and capacity in tackling the problem of malnutrition.

Schools

One thousand and ninety schools are serviced by Naandi's MDM programme. Suvarchala the senior-most teacher at Himayathnagar Government School told researchers that most of her students belong to Below Poverty Line (BPL) families and are unable to afford a proper meal during the course of the day. In such a situation, Naandi's MDM programme contributes tremendously in motivating students to come to school.

⁵ These biscuits are now sold in the market as Tiger biscuits.

⁶ A rice supplement fortified with iron, zinc, and folic acid.

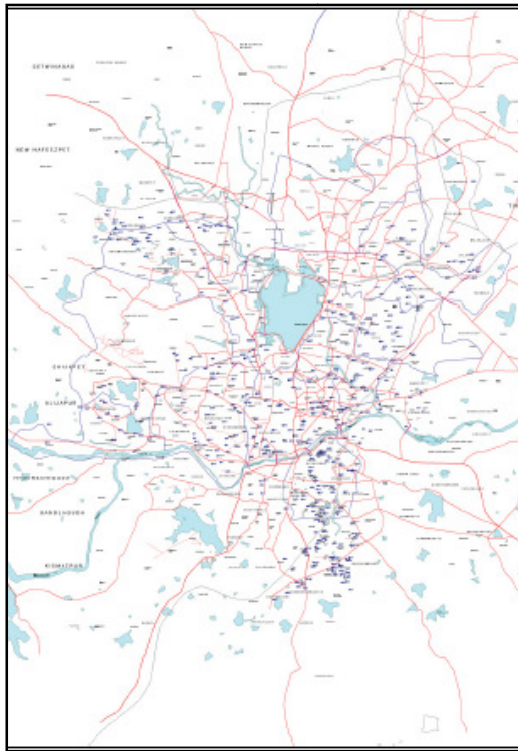


Figure 7: Naandi meal delivery routes in Hyderabad,
Source: Naandi Foundation



Figure 8: School children enjoying Naandi's midday meal

Suvarchala told researchers that meals are served with the help of other teachers and senior students. To spread awareness about the midday meal, teachers reach out to parents and children in discussion sessions before school starts. Midday meals are also discussed in the Academic Monitoring Committee Meeting⁷ where feedback is gathered and conveyed to Naandi.

In between eleven thirty to twelve every morning, thirteen year old Prashant's attention wanders towards the classroom door, because he knows it is time for the noon meal to arrive. When the meal arrives, he and his friends excitedly get their plates and assemble in a

⁷ Parents of sixteen children are members of this committee.

line. Today the menu includes tamarind rice and curry which happens to be his favourite. In a matter of time, all his friends and classmates take their meals and sit in neat rows inside their classroom. Some of them are enjoying mango pickle along with the rice, while some wish that it was tomato rice instead. The joy of having a full meal is reflected on each child's face and many going asking for a second helping or even a serving to pack and take home.

Lessons Learned

Key Achievements

1. Building an efficient and effective business model

Founded by corporate leaders, Naandi operates according to business principles, particularly that of precision, that have led private organisations to succeed. A diverse group of private sector professionals and public figures provides important oversight and supervision to Naandi operations which encourages transparency and pluralism, enforces quality control and accountability, and builds organizational credibility.

2. Successful Partnerships

Naandi has been highly efficient in developing partnerships with a variety of actors, be it the government, individual donors and corporates, or experts like GAIN. Naandi has managed to utilize the expertise of each partner to effectively develop the MDM programme. Naandi's ability to maintain high quality processes undoubtedly a result of its strong partnerships with private and civil sector allies.

3. Combating undernutrition through fortification and Increasing school enrolment through meal provision

Naandi's centralized kitchen and distribution of hygienically cooked nutritious midday meals with micro-nutrient supplements through the process of fortification addresses the twin objectives of nutrition and school enrolment. The programme has demonstrated the technical and operational feasibility of fortification. Blood tests have shown an increase in levels of children's nutrition. Naandi's programme has also managed to reach a much larger population than expected because children often bring their siblings to school to eat and also pack meals to take home and share with their parents. A more than 25 percent increase in attendance in the schools across the city with an almost 40 percent increase in the areas inhabited by minority communities, is at least anecdotally correlated to the results of Naandi's efforts. A marked decrease in health-related absenteeism is another effect that is likely linked to Naandi's delivery of midday meals.

4. Upscaling

Hyderabad	129,274
Visakhapatnam	43,754
Indore	53,230
Jabalpur	57,000
Bhopal	72,000
Udaipur district	95,104
Bhilwara	46,758
Govindgarh	35,000
Dungarpur	40,000
Gandhinagar	26,171
Gangrar	25,000
Jhadol	20,000
Jhalawar	35,000
Kapasan	25,000
Kishangarh	28,000
Mandapiya	27,486
Nimbaheda	25,000
Salumber	30,000
Bikaner	45,000
Kota	75,000
Behrampur	104,000
Korba	50,000
Kalahandi	15,000
Total no. of school children	1,102,777
Total no. of schools	10,057

Figure 9: Details of kitchen locations and number of children served under each kitchen

In only seven years, Naandi’s MDM programme has scaled up from feeding 150,000 children in one state, to over one million in four states (Andhra Pradesh, Madhya Pradesh, Rajasthan, and Orissa). With the recent establishment of a fifth kitchen in Chattisgarh, Naandi’s urban MDM model is eminently scalable, and can easily be adopted by the 50 major cities of India. The efficiency of the kitchens and the consistency of the quality of food supply have resulted in the governments of other states inviting Naandi to set up similar kitchens. Through partnerships with Naandi, government actors are investing in the health, education and over well-being of India’s children.

5. Kitchen model

The centralised kitchen model is beneficial for a number of reasons. First, by providing cooking facilities outside of school premises, the model reduces fire hazards in schools. It also solves the space constraint faced by many urban schools. A single kitchen makes sanitation easier. Lastly, with children from all backgrounds eating the same meal prepared from one kitchen, Naandi’s model helps to overcome differences and problems based on caste and untouchability,

6. Innovative use of technology

Steam cooking was introduced to pursue large-scale cooking with optimum hygienic conditions. A global positioning system (gps) was used to map the locations of all 915 schools in Hyderabad. From this, ideal routes were marked for most efficient distribution of meals.

7. Varied Menu

To keep children happy and attentive in schools, Naandi provides a variety of dishes in the course of a week. Nutritional add-ons such as eggs and bananas, and unlimited servings make the midday meal appealing to students.

8. Sophisticated monitoring mechanisms

Naandi runs a foolproof, beginning to the end, operating system. Records of meal quantity and quality are maintained at each level. Route coordinators hired by Naandi, conduct weekly visits

to schools to gather feedback about the meals. Schools maintain toothier won records as well. The state government organizes random monitoring. Naandi has even opened its kitchen doors to outside institutions.

Challenges

- One of the biggest challenges that Naandi faced was dealing with the complex logistics of the programme, right from setting up the kitchen to planning the routes for delivery. Every such step was tested to firstly determine the feasibility.
- It proved to be a daunting task to convince government officials at various levels about the need for Naandi's involvement. However, in time Naandi proved its power and officials were more willing to accept its role.
- Some areas of kitchen operations proved to be extremely difficult terrain. Naandi workers have to carry meal containers for long distances or across streams to deliver them to some of the remote villages of Rajasthan. There are also instances involving children of migrant workers who moved with their families to worksites, wherein the Naandi approach was difficult to apply.
- For Naandi, it was very important to gear the menu to local taste. This took some time. After some initial hiccups, the flavour of the meal in certain areas was revised based on feedback. For example, in some states, students preferred spicier food; as such, children were occasionally provided with mango pickles to complement their meals.
- At the same time, it was also important to make the meal as nutritious as possible. Vegetables were introduced in the hope of adding more nutrition, but many children refused to eat them because they didn't like the taste. The solution was to grate the vegetables into the curry so that they could not be separately identified.
- Designing an appropriate fortification vehicle involved a lot of time and money. Gradually, the soya dal analogue was developed which proved to be a cheaper and faster alternative. However, there is still scope for searching out other sustainable ways to provide critically needed nutrients for the students.
- Recruiting and maintaining a committed and motivated staff for the centralized kitchens was a big challenge. Over time, Naandi managed to develop a network of dedicated individuals.
- Other challenges include maintaining a high standard of quality, punctual and error free delivery, while giving special attention to hygiene and sanitation.
- Lastly, public service delivery can be a sensitive issue especially when it involves feeding millions of young children. The media can be very quick to judge, therefore the appropriate mechanisms to deal with this have to be in place.

Proposed Enhancements

Naandi has expressed plans to strengthen its operations in the following ways:

1. Introduce candy as a source of Vitamin A
2. Develop alternative vehicles for fortification so that they can provide a rich variety of food with sufficient minerals and nutrients.
3. Involve the Integrated Child Development Scheme (ICDS).. The effort has already started as a pilot project in Andhra Pradesh, where Naandi has collaborated with the Women and Child Development Department in delivering idlis from the central kitchen to the ICDS centres. For this purpose, additional routes have been added to the original plan. The challenge here is to convince the local Angadwadi workers that there is a need for Naandi's involvement.

Replication

Naandi's MDM programme should be considered for replication across the country as malnutrition and low school enrolment continue to stifle economic growth, reduce productivity and increase health care costs. While seeking to replicate Naandi's programme in meal delivery, the following must be considered:

1. Analyzing the efficacy of a centralized model in opposition to the cook at school method. Perhaps in areas with sparse populations a centralized model of this scale would be misplaced. With the right facilities, a combination of the two can be considered so as to expand the reach of the programme.
2. The success of the school feeding program relies on a broad set of partnerships that unites socially conscious institutions from both the public and private sectors. The business model could be considered one of the biggest strengths of this programme.
3. Adaptability of such programmes to local conditions (terrain, taste) is crucial for success. Therefore, while aiming to standardize procedures and methods, it is also important to build the programme in a way that it can be modified over time.
4. Naandi is simply one success story. To reach all of India's children, a national perspective must be taken. In this regard, the various implementers of the MDM programme in the country should come together under a common platform and devise strategies for building clear-cut norms and procedures, in terms of costs, operations and partnerships, to determine the best innovations and techniques for service delivery.

Research was carried out by the OneWorld Foundation India (OWFI), Governance Knowledge Centre (GKC) team.

Documentation was created by Research Associate, OWFI, Sapna Kedia

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- World Bank Institute and Global Alliance for Improved Nutrition (GAIN). Case study on Naandi Foundation's Midday Meal Programme.

Interviews were conducted with representatives from stakeholder organizations: V. Madhusudan, State Coordinator for Sarva Shiksha Abhiyan(SSA); Leena Joseph, Head of Midday Meal Program, Naandi Foundation; Santosh Kumar P, Assistant Manager of Midday Meal Program, Naandi Foundation; Suvarchala, senior most teacher at Himayathnagar Government School, Hyderabad and students of Himayathnagar Government School, Hyderabad.

Appendix A

Stakeholder Interview Questions

Department of Education - Andhra Pradesh

Mr. V. Madhusudan

1. How would you assess the current functioning of the midday meal programme in Andhra Pradesh? In Hyderabad?
2. Why did the government decide to bring Naandi Foundation, an NGO, into the delivery process of the MDM programme?
3. Did the government decide to position the Naandi kitchen in Uppal? If so, was this location chosen for any particular reason?
4. Why do you think a centralized kitchen model is advantageous?
5. What changes over time have you seen in Naandi's kitchen programme?
6. How does government help to monitor/ensure effective delivery of kitchen-related operations?
7. What were some of the challenges faced in operationalizing Naandi's kitchen programme?
8. Do you believe Naandi's kitchen programme has helped in the delivery of midday meals? What has been the qualitative or quantitative impact?

Naandi Foundation

Leena Joseph- Head of Midday Meal Programme

Santhosh Kumar P- Assistant Manager of Midday Meal Programme

1. Can you explain how the MDM kitchen programme works? Describe the daily procedure of preparing the meals, packaging them, transporting and delivering them to the students. What is provided as a part of the meal? Describe the nutritional add-ons provided.
2. How are meals fortified- can you describe this in relation to your partnership with GAIN?
3. Can you explain the financial partnership between Naandi and the Andhra government?
4. Does Naandi have any other partnerships that have contributed to the outcome of the kitchen programme? In what way have they contributed?

5. What measures are taken to ensure hygienic cooking conditions, maintenance of the kitchen, and transportation of meals?
6. What measures are taken to ensure effective kitchen operations? How are staff members trained? How are operations monitored?
7. Is the Naandi staff also involved in distributing the meal once it reaches the school, or does their job end when the meal is delivered?
8. What were some of the major challenges faced during implementation? Do you predict other challenges in the future?
9. How impactful do you believe the kitchen programme has been? Has attendance increased since its inception? Have health-related problems and/or absenteeism decreased?
10. How difficult was it to replicate the initiative in other states? Which other states is the initiative taking place in?
11. How does Naandi monitor the kitchen programme? Is feedback from stakeholders – students, teachers, parents, and kitchen staff - gathered? Is it analysed/ utilized to the benefit of the programme?
12. Are there plans for enhancements in the programme?

Institutional partners like Global Alliance for Improved Nutrition (GAIN)

Dr. Sadhana Bhagvat- Programme Associate for GAIN in South Asia

1. Please describe your partnership with Naandi in terms of the midday meal kitchen programme? According to our research, there have been two major collaborations – a fortified rice programme in Andhra Pradesh and a complete fortified meal programme in AP, MP, and Rajasthan; can you expand on this?
2. Our research shows that GAIN's partnerships with Naandi were to end in 2009/2010? Is this correct? Is GAIN still a partner in the programme?
3. What are fortified meals? Can you describe the process by which meals are fortified? What are their major benefits?
4. How does GAIN monitor impact - specifically in its involvement with the kitchen programme? For example, how are changes in levels of anemia and malnutrition measured with students who access Naandi's kitchens?
5. How successful have your efforts been in supporting Naandi's kitchen programme?
6. What are the challenges that GAIN has faced in this partnership?
7. Does GAIN have plans to expand the partnership in the future?

8. How impactful do you believe Naandi's efforts have been? What do you think are its major advantages? Do you foresee challenges as the programme progresses?

School Staff

Mrs. Suvarchala -Senior most teacher, Himayathnagar Government School, Hyderabad.

1. Describe the midday meals in terms of regularity, timeliness, quality, hygiene, variety etc.?
2. Has there been a marked improvement in the attendance of the students as an outcome of the MDM? Do you think that Naandi's kitchen programme has contributed to this?
3. Has there been an overall improvement in the standard of the classes i.e. are students more attentive in class? Do you believe that this is a direct/indirect result of midday meals? Prior to Naandi's kitchen programme, were these positive changes occurring?
4. Do you feel that the Naandi staff members are adequately trained?
5. Have you experienced any challenges in dealing with Naandi's kitchen programme?

Students

1. Prior to the midday meal programme, did you attend school regularly? Now with the meal, are you coming more often?
2. Describe your midday meal in terms of taste, variety, regularity, timeliness, hygiene?
3. Do you have any complaints or suggestions for improvement in your midday meals?