

The Community Kitchen in Attapady: Reassessed

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Abstract: Community Kitchen is an emblazoned Programme under the social justice department of the government of Kerala, implemented by Kudumbashree in the tribal hamlets of Attapady. The study aims at a review of the programme based on the feedback from the communities. Primary data was collected with a focus on the factors such as Regularity of the programme, Cleanliness, Quality of the food served, Awareness in the community, Efficiency in project planning and implementation and Implications from reported infant deaths. The analysis shows that the community kitchen is a scheme designed without considering the opinions from the communities and is yet another skewed intervention. It doesn't empower the community to be self-reliant but makes them even more dependent on the welfare schemes. The programme has digressed away from the planned goals but is irregular, unsustainable and doesn't ensure nutritional security of the beneficiaries.

Keywords: Community kitchen, Tribal health, Morbidity, Infant deaths, Nutritional security, Attapady, Intervention.

I. INTRODUCTION

Attapady is an extensive valley in the headspring of river Bhavani, in the Palakkad district of Kerala. The tribal block was established in 1962, one of the first tribal blocks in India. Irula (77%), Muduga (13%) and Kurumba (10% PVTGs) are the major tribal groups residing in Attapady. In the 1900s the region was primarily forested and inhabited by tribal communities. The 82% forest coverage in 1959 came down to 19.7% in 1996 and the 99% tribal population in 1951 slipped down to 40.9% in 2001[1]. In 2012-13, 51 infant deaths were reported in the tribal block. The young pregnant women of Attapady are morbid and anaemic leading to malnourishment and underweight among new-borns. The overall prevalence of anaemia was 85% among women, with 56% having mild anaemia, 28% moderate anaemia and 1% severe anaemia. The overall prevalence of underweight was 78.6%, stunting was 77.8%, and wasting 53% among the children attending a health camp at Tribal Specialty Hospital at Kottathara in Attappady tribal block. The Rapid Nutrition Assessment conducted by the National Institute of Nutrition, in May 2013, among children and reflects that the food and nutrient intake of the tribal population was lower than the recommended levels. The scale of deficiency in micronutrients (iron, vitamin A, riboflavin, folic acid) was higher. High maternal malnutrition (48% had BMI<18.5) was also reported by the study. The principal cause of reported stillbirths and abortions was ascribed to Pregnancy Induced Hypertension (PIH) and diabetes, followed by premature delivery and accidental death. For neonatal deaths, the major cause exposed was PIH, premature delivery, and antepartum haemorrhage, obstructed labour and congenital anomaly. Lapses in healthcare delivery system were identified and reported for corrective measures.[2]

The concept note for community kitchen was introduced in this backdrop of malnutrition and high infant deaths. This paper tries to explore the skewed implementation and real outcomes of the project in contrast to the planned goals and expected outcomes.

II. A BRIEF OUTLINE OF THE COMMUNITY KITCHEN PROGRAMME

The Project Management Unit submitted the concept note of Community Kitchen to the Social Justice Department, Government of Kerala. The project got approval and is supported by the Social Justice Department, Integrated Tribal Development Programme and Kudumbashree Mission. It was earlier run by ICDS but later handed over to the PMU under Kudumbashree. Community Kitchens are self-managed units by the NHGs where they procure the provisions from the Maveli store (PDS), firewood and vegetables. It was previously designed for one meal a day. The *pregnant and lactating women, children from 6 months to 6 years of age, adolescent children and elderly citizens* are the main beneficiaries. At present, the food is being provided three times a day: in the morning, afternoon and evening to the beneficiaries. A special community kitchen is being run in the Kotathara hospital by Thekemukkuyur community kitchen. As of 2015 Kudumbashree report, 175 kitchens were operated with 15049 beneficiaries. The expected outcomes of the project were: Cooked food for the vulnerable and needy families in tribal hamlets, Advantageous for elderly, pregnant, lactating, children, mentally challenged, bedridden, patients, Increase in birth weight of newborns, Maternal health care and nutritional awareness is ensured, Awareness of how to prepare a broad range of healthy foods, build a sense of community and belonging Expand participant awareness of healthy cooking methods, Social inclusion.

III. METHODOLOGY

The paper is based on the primary data collected from fields studies conducted in Attapady AND secondary data gathered from Attapady Tribal Specialty Hospital, Attapady. A mix of qualitative and quantitative data analysis has been used for data analysis. The list of beneficiaries was collected from Animators and using purposive sampling 40 among them were selected as the sample. Data collection was done using the research tools such as semi-structured interviews, Focus Group Discussions, Case studies, and Participatory observation.

IV. RESULTS AND DISCUSSION

1. The regularity of the programme: The project is designed to serve the beneficiaries in the community with three meals a day – breakfast, lunch and dinner to ensure nutritional security. However, the field reality is different, it is relieved that the service is often discontinued. The kitchen service is halted when the grocery stock is insufficient. The groceries are procured from the state's civil supplies cooperation – Supplyco. Supply co provides everything other than vegetables. Animators are responsible to get the stock on time. But when there is a lack of fund available with them, they won't be able to procure the essentials. Without the availability of stock the kudumbashree members who serve as chefs, are unable to provide their service. This blockage of service even lasts for two to three weeks or even months. During this halt, household instead of waiting for the programmes to resume cooks their food as the groceries are provided by the public distribution system. However, they wait for a few days by sustaining themselves with unhealthy snacks available from the shops and tea. This can seriously affect the health status of the vulnerable sections like children, elderly and pregnant women. The programme aims at providing quality food for the beneficiaries to get them out of the risks of poverty, malnutrition and other health issues. However, the repeated interruption and gaps of the programme implementation will keep it away from achieving its goal of nutritional security.

2. Quality of the served food: Quality of the food served is considered by assessing Cleanliness and Nutritional Standard.

2.1 Cleanliness: Cleanliness in the cooking space is one of the factors of immense concern. For the implementation of Community Kitchen, there is an urgent requirement of a clean place or community hall for the cooking purpose. This issue is not just limited to one or two hamlets but many. Some of the hamlets use their community hall for cooking which is an ideal move but other hamlets depend on smaller shacks without basic facilities. In some hamlet, during rainy days the services were halted as the shacks start leaking and dripping. A few people have had experiences of food infection. The project implementation agency has not properly considered the infrastructure required for the project implementation. Neat and clean place for cooking along with proper waste disposal mechanisms are essential to ensure the quality of service provided. Respondents were reluctant in sharing this as they thought it won't work even if one or two people put forward their request or demand.

2.2 Nutritional Quality: Assessment of the nutritional quality of the food served in the community kitchen can be analysed in comparison with the National Standard Nutritional Requirement. The composition of nutrition content for Indian Diet is given in Fig 1. Recommended Dietary Allowance (RDA) is the estimated quantity of nutrients essential for the maintenance of good health. Figure 1 shows the RDA for essential nutrients.

According to dietary experts, there is a requirement of 50-60% of carbohydrates, 10-15% of proteins, 20-30% of fats and other minor amounts of vitamins in the daily food intake of an individual. A balanced diet is a food that includes an adequate fraction of nutrients such as carbohydrates, fat and proteins. Dietary requirements vary according to age and health conditions. For an adult man the composition is as follows: Fat/oil- 5*g x 5** , Sugar- 5*g x 5** , Milk – 100*g x 3** , Pulses – 38*g x 2** ,Vegetables – 100*g x 3** Fruits- 100*g x 3** , Cereals and Millets – 30*g x 12** , *portion size ** - Number of portions This composition is different for pregnant women, lactating women and an elderly women who needs extra proportion of nutrients as mentioned: Pregnant women: Fat/Oil-2, Milk-2, Fruit-1, Green Leafy Vegetables-1/2. Lactating Mother: Cereals-1, Pulses-2, Fat/Oil-2, Milk-2, Fruit-1, Green Leafy Vegetables-1/2 Between 6-12 months of lactation, diet intake should be gradually brought back to normal. Elderly women: Fruit-1, reduce cereals and millets [3]. The major source of carbohydrates is Whole grain cereals, millets. Vegetable oils, ghee, butter forms major fat sources whereas Pulses, nuts and oilseeds, Milk and Milk products, Meat, fish, poultry are major protein-rich intakes and Green leafy vegetables and fruits are rich in Vitamins, minerals, folic acid. There is a necessity of including cereals, whole grains and millets for a sufficient amount of carbohydrates in the menu. These are found to be healthier than ordinary rice or wheat. Pulses, nuts and milk products serve as an excellent source of proteins. Leafy vegetables and fruits play a key role in providing vitamins, minerals and folic acid. Attapady is a region confronting alarming threats of malnutrition and morbidity. The community kitchen was introduced in the backdrop of increased infant mortality occurred during 2013. Hence its preliminary aim is providing nutritional security to the community. Above discussed facts depicts the standard nutritional requirement proposed by the National Institute of Nutrition and ICMR.

**Balanced Indian Diets –
Composition and Nutrient Content**
Nutritive value of the balanced diet planned for a Man doing
Moderate work (Based on new RDA)

Nutrient	Vegetarian Diet	Non-Veg Diet	RDA
Protein (g)	81.4	85.6	60
Total Fat (g) (visible + invisible)	60	76.1	30+30
Visible fat or oil(g)	30	30	30
Energy (kcal)	2734	2731	2727
Calcium (mg)	886.3	1125	600
Iron (mg)	20.6	31.0	17.0
Vitamin A (µg)	95	224	600
Carotene (µg)	7989	4250	4800
Thiamine (mg)	2.0	2.1	1.7
Riboflavin (mg)	1.6	1.6	1.7
Niacin (mg)	22.7	25.2	18
Pyridoxine (mg)*	1.7	2.0	2.0
Ascorbic acid (vitamin C) (mg)	192.0	96.0	40
Folic Acid (Ug)** (free/Total)¶	83.4/317.0	89.1/242.2	200
Vitamin B12 (Ug)***	0.34	1.7	1.0
Magnesium (mg)	578	597	340
Zinc(mg)	10.7	11.3	12

- Pyridoxine values are not available for all the foods
- ** Folic acid values are not available for few foods.
- *** Vitamin B12 requirements are met in Non vegetarian diet and only 34% of the RDA in Vegetarian diet since B12 is only present in animal foods.

Fig 1 Balanced Indian Diet (ICMR report)

Menu of community kitchen: Breakfast – Idli, dosa, Puttu, rice soup etc – Rich in Carbohydrates plus Pulses curry – rich in proteins Dinner- rice or rice soup, curry – carbohydrates and proteins Vegetables – Rarely – explicit deficiency in minerals, vitamins and folic acid. Non-vegetarian- Not served – obvious deficiency in essential proteins. The menu clearly shows that it provides a substantial amount of carbohydrates and protein to the consumer through rice, pulses and other rice made items. Vegetables are difficult to get if there is a fund allocation because it is not available through supply co, hence has to be bought from general vegetable vendors. So the beneficiaries – the pregnant women, children and elderly seldom get vegetables in their daily diet. Vegetables are crucial in providing essential vitamins and minerals. It also gives a sufficient amount of folic acid that is crucial for pregnant women. There is a high infant mortality rate in Attapady. One of the root causes for this is weak, morbid mother during pregnancy. Folic acid is important in the development and growth of children contributing to their required birth weight. When the diet is not providing what is required for the health status of the beneficiary, the mission itself goes in vain. Further, the menu does not provide any kind of non-vegetarian items or even milk or egg which should be included in a balanced diet. Moreover, the nutritional requirements of different target groups vary. As discussed previously the nutritional requirement of the elderly will be different from

that of children and the pregnant women will be entirely different from that of children or elderly. But here the menu is the same for all the three target groups- a generalized diet. Hence the nutritional quality of the provided meals is under question. Furthermore, rather than tackling the issue of nutrition security, the project tends to minimize its limit only towards curbing hunger, which is already being dealt with by many other projects and PDS.

3. Awareness and Perspectives of The Beneficiaries- Awareness of beneficiaries on their nutritional requirements, impact of the programme and food wastage is analyzed.

3.1 Awareness on nutritional requirements: Only a few people have an idea about what nutritional standard means. Pregnant women do not care about their health conditions. Tobacco and alcoholism are common among women even during pregnancy. This is a serious issue. If they are not aware of what they need to consume good food and feed their babies on time, no external intervention will be successful in its unidirectional efforts. Awareness comes in as the foremost stride. However, they are aware of the changes that have happened in their food and lifestyle. They consider the loss of traditional farming and consumption of ethnic tribal diet is the root cause of all their health issues. Their forefathers remained healthy as they consumed Raggi, vegetables, tubers and other healthy forest products they cultivated by themselves without using toxic fertilisers. However, now the entire community is compelled to live in a lifestyle and dietary habits imposed on them by policymakers and external interventions.

3.2 Awareness on the potential impact of the programme: Beneficiaries are unable to express, their views on actual benefits that they get from the project and why it is being implemented. A right based attitude has slowly sprouted among many- getting cooked food every day is their right. Hence they take it. These rights-based understanding without knowing the actual need of their own could be destructive to community development. A programme cannot achieve its wider goal if the community doesn't participate with full fledged understanding. For the communities be active participants rather than passive receivers, it is necessary for them to have proper awareness about the issues they face or the project designed for them; both pros and cons. Only then they will be able to resist when something goes against their needs. If the situation continues it can only make the target population more and more dependent on the government, going back to a self-reliant life will again turn to be a distant dream.

3.3 Capability to suggest reforms: Community's capability to suggest reforms in a programme reflect the extent of awareness about it. Quality propositions enure only if they have the ability and agency to evaluate the situation. The community is aware of the lifestyle changes they had in the past decades and how has it affected their health conditions. They demand their livelihood to be reinstated and believe the cultivation of traditional crops and changes in present consumption patterns can get their health and wealth back. Majority of the community has not created a rights-based attitude in the case of community development services. They prefer getting their livelihood back, rather than receiving cooked food that doesn't suit them. However, they restrain from expressing their opinion, because it's always subsided!

3.4 Awareness on Food Wastage: Visual assessment is the method is used to assess food wastage in various community kitchens. This method took around a period of continuous observation of four weeks. It is done by observing loads of garbage over a period, noting the apparent percentage of food wasted and comparison across the time. It is assessed that more wastage comes during the dinner sessions than the breakfast period. The wastage ranges from 20% to 60% some days. There is no proper waste management system in any of the kitchen. This happens because the number of beneficiaries turning up is unpredictable, it always shows fluctuations. People are not aware of this food wastage hence they don't hesitate to be abstinent from many days without receiving their portion leading to wastage of cooked food. People or the staff or even the implementation agency is not much bothered about this and proper waste management. This is happening in the very same place where a man (Madhu) was beaten to death on allegations of stealing food because he was hungry!

4. The Efficiency of Programme Planning and Implementation: Programme planning and implementation has several sub-components. Here Prior studies, beneficiary identification and management of funds are taken into the focus.

4.1 Prior surveys or pilot projects: Before the initiation of any project, it is important to conduct an overall study to have a holistic idea about the present scenario and the challenges that would come across during the implementation of the project. The pilot project is the minuscule account of a full-scale project which helps in evaluating the practicability, time, overall cost and possible consequences of the larger project. The community kitchen was introduced after the visit of a minister to the block in the milieu of increased child deaths happened in there in the year of 2013. He in his speech

promised its implementation and was totally against the opinion of many NGOs or other organizations functioning at a grassroots level. A social audit was conducted to decide on the food menu and a couple of studies were done from the government and Kudumbashree. However, these reports are not made available online. The community kitchen was seen as a panacea for curbing infant mortality and morbidity among the people of Attapady. But this generalization was too early as there was no proper scientific study conducted by any health institutions in search of the real root-cause of the issue of infant death which could have been raised from multiple reasons, definitely rather than poverty.

4.2 Beneficiary identification: Tribal households in Attapady live in poverty. Majority of them are agricultural wage labourers. Agriculture among tribal communities is almost perished due to climate change, land alienation and exploitation. Pregnant women, young girls, elderly, differently-abled and children were identified as beneficiaries. However, there's beneficiary encroachment and non-beneficiaries are as well taking the service of the community kitchen.

4.3 Management of funds and M&E: Any shortage of funds in the tribal block of Attapady is quite impossible as funding comes from various government and non-governmental sources for tribal development. But for community kitchen programme issues of timely allowances of the fund is often confronted. At times the tribal promoters and animators lack money to get essentials that are meant to be bought from outside shops for cooking food in the kitchens. As a result, the service of community kitchens would be halted for weeks. Monitoring and evaluation are done by Kudumbashree. Even though it's been five years of the project, no evaluation studies were conducted by the agency until now. Without doing a systematic impact evaluation, the project is being planned to be replicated in other tribal hamlets of Kerala.

5. Implications from The Reported Infant Deaths: Kotathara Government Tribal Specialty Hospital, Attapady was set up in 2007 for boosting health care services to the tribal communities alongside PHC and CHC. There are certain implications to be drawn out from the reported infant deaths in Kotathara Tribal Specialty Hospital, Attapady from the year 2012 to 2017.

5.1 Reported infant deaths: Graph below shows the number of infants expired in the Tribal speciality hospital between 2012 and 2017. This data set was obtained from Tribal Speciality Hospital, Kottathara, Attapady from the year of 2012-2017. The peak number of infant deaths was reported in 2013. Though the number of children died has reduced in the consequent years, there the mishap is not yet wiped off. Though the number reduced in the years 2014, 2015, 2016 constantly, there is again a slight increase in the trend in 2017, which means the reduction is not yet consistent. Also, this reduction can never be the sole achievement of the community kitchen. But various other health programmes have as well contributed to the reduction.

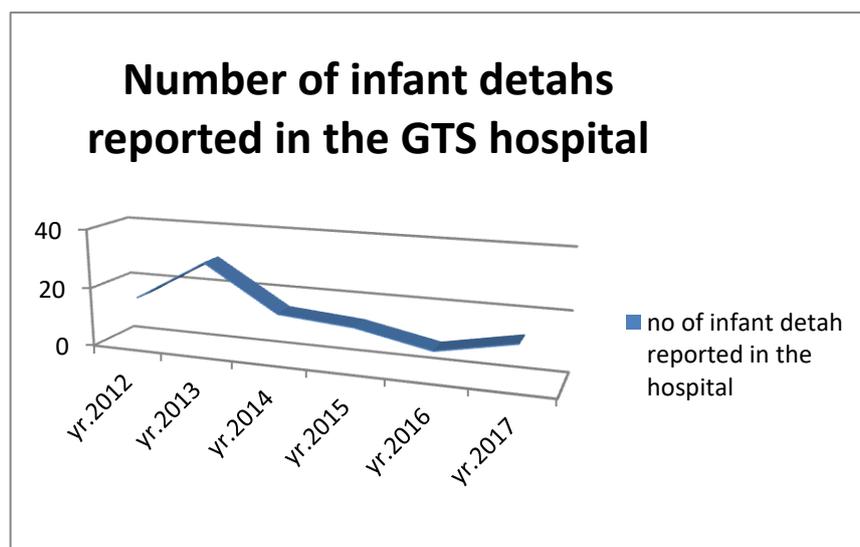


Fig 2: Number of Infant deaths reported in GTS hospital

5.2 Causes of reported infant deaths: Figure below shows the reported causes of Infant deaths registered in Tribal speciality hospital, Kotathara. Figure 3 is a line diagram that shows the causes and number of children died had these diseases or conditions that caused their death from the year 2012 to 2017. It is clear that there is a wide range of causes for

the infant deaths reported in the hospital. The root causes of these combinations of health disorders for the tribal infants are still ambiguous. Premature birth and low birth weight are two issues that are more easily avoidable if the focus is given on nutritional security. Analyzing these reported causes it is evident that poor care during pregnancy and post-delivery are root causes leading to various issues other than nutritional instability. There is a serious requirement of contentious antenatal check-ups during this period to avoid many of these diseases. Conditions like Anal Artesia are congenital. Milk aspiration arises from lack of proper breast feeding. Mothers reported that they do not used to have enough breast milk to feed their babies which can be directly linked to nutritional imbalances. Post natal care should also be given due importance. With the changing life style and food habits the physical health system of the community has grown vulnerable. Most of the gastro industrial issues are genetic so as the sickle cell anemia. These cannot be prevented using medicines but avoiding marriages between both partners having these genetic issues. Providing proper awareness can only help it. The initial step to tackle this is giving proper awareness to the people young mothers. Unless and until they realize and accept the truth they won't act to have a solution. For this purpose, the idea of developing community kitchen as a resource hub can wisely be utilized. However, the impact of community kitchen in addressing multitude of health issues resulting in the infant deaths is under question.

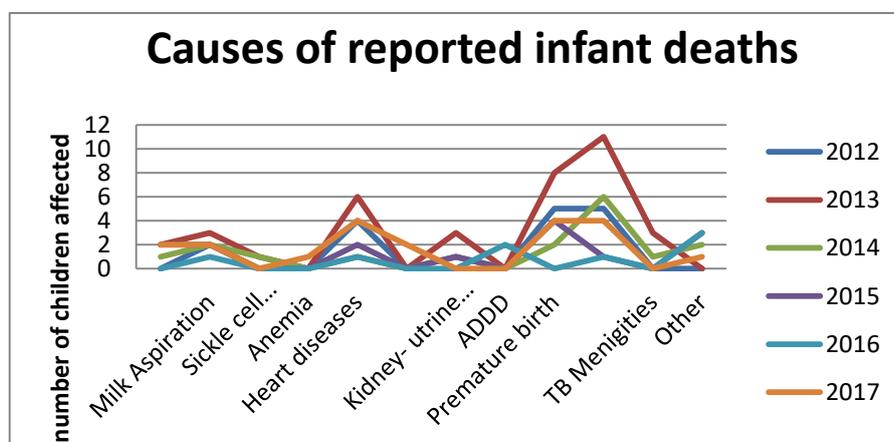


Fig 3: Causes of Infant Deaths in Attapady

5.3 Birth weight of the infants expired: Premature birth and lower birth weights are two linked conditions. Premature birth is when a baby is born before 37 weeks of gestation. Recorded birth weight if less than 2.5 kilograms is known as lower birth weight [4]. There are still a huge number of reported cases of premature births and low birth weight even in 2017 when compared to 2013. Average birth weight required for a healthy baby is 2.5 kgs. Most of the children dead weigh between 1-2 kgs followed by 0-1 kg showing extremely poor birth weight. The above graph shows the number of children born between 2012 – 2017 and the range of their birth weight. There is a reasonable reduction in the number of infant deaths but the birth weight range of children born remains in the red mark of the range 1-2 kgs. Which means measures taken for improvement of nutritional security including community kitchen haven't given a clear impact on the increase in birth weight?

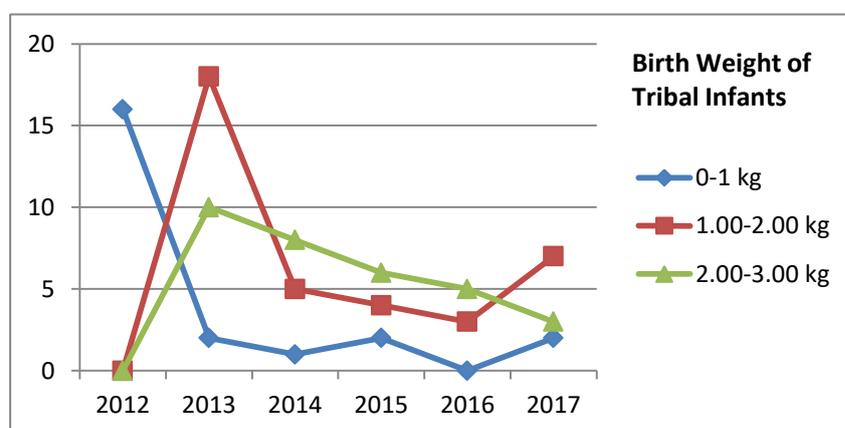


Fig 4: Birth weight of infants

V. CONCLUSION AND RECCOMENDATIONS

The study reveals that the community kitchen is yet another skewed intervention in tribal hamlets of Attapady. Community Kitchen initiative cannot claim credits for the decreasing infant deaths in the valley single-handedly. That's a collective effort from various departments. The community kitchen has not provided specific nutritional care for different beneficiaries rather simply cooked using the groceries provided by PDS, which the households in Attapady could do by themselves and thereby questioning their integrity. This alien intervention instead of empowering the community forces them to be more depended on the state. The gaps in implementation (irregular halting of the service, a non-tribal menu, food wastage) make the scheme unsustainable. Voice of the communities remains unheard. They have not demanded cooked food, but the restoration of their agriculture-based livelihood. Community Kitchen could be a temporary remedy, not a panacea for Attapady crisis. However, reiterating certain suggestions from the community:

- Immediate change in food menu to include more healthy tribal cuisines with millets, corn, leafy vegetables etc
- Ensure regularity of the programme without stopping it in between
- Clean cooking halls and regular monitoring of the cleanliness of each kitchen
- Include more nutritious food as per national nutritional standards – egg, meat, vegetables, coconut
- Fine-tune the specific nutritional patterns for different beneficiaries
- Ensure quality of food served
- Ensure minimum wastage and waste management system (like bio-waste)
- Due salary for the cooking staffs and other staffs involved
- Enhance livelihood of the community and empower them to ensure their food and nutritional security.

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