

Is child nutrition a priority in Kerala? An exploration of the Integrated Child Development Services Programme

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Background

Kerala, a southern state of India, is well known for its better health indicators than elsewhere in India, including child nutrition. However, the state's efforts to tackle malnutrition have been relatively stagnant in the last decade.

Objective

The present paper examines the prioritization of child nutrition in the political agenda of Kerala and the implementation of the Integrated Child Development Services (ICDS), the universal nutrition supplementation programme for children below six years in India.

Methods

Thirty in-depth interviews with ICDS service providers and policymakers, and document analyses (ICDS Manual for District-level Functionaries-2017, Legislative Assembly questions, and field diaries) were conducted. Thematic analysis was done and the findings from interviews and document analysis were corroborated to generate final themes.

Results

The achievement of nutrition goals of ICDS were found to be affected by inadequate facilities in the Anganwadi Centres (AWC); undue importance placed on perfect documentation rather than the operationalization of ICDS services; parents' expectations about their children's education; helplessness of Anganwadi workers (AWW) to persuade parents to give their children supplementary nutrition or send them to AWCs; job burden of AWWs and ICDS supervisors and the lack of earnestness concerning the importance of adequate nutrition; cutting the budget for implementing ICDS and irregular disbursement of allocated budget leading to AWW's out of pocket expenses; stoppage of the training for AWWs; and poor cross-sectoral convergence.

Conclusions

There are lacunae in implementing ICDS at many levels, from political will to ground-level hurdles faced by the AWWs in delivering the services. Priority should be given to real action rather than focusing on making the programme look successful on paper.

INTRODUCTION

The Integrated Child Development Services (ICDS) is a national initiative of the Government of India established in 1975. The functions of ICDS include growth and nutritional status monitoring of children below six years; providing nutritional supplements to children 6-72 months old and to pregnant women and lactating mothers; immunizing children; providing preschool education to children (3-6 years); conducting routine health check-ups and engaging in

referral health services, and imparting health and nutrition education to mothers. All the above services are provided at the 'Anganwadi Centres' (AWC) at the grassroots. One AWC serves a population of 500 in difficult-to-reach areas and 1000 in other areas. The AWCs are managed by honorary workers designated as 'Anganwadi workers' (AWW) who are supported by a helper (Government of India, 2019.). After being targeted to the poorest 40%, the ICDS was later universalized from 2005 to 2008. As of today, the ICDS

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reaches out to 100% of the target population in Kerala. The state has 258 ICDS projects and 33,115 AWCs (NITI Aayog, 2020). However, the initiative's objective to eliminate malnutrition among young children has not shown momentum in the state. The annual reduction in child undernutrition levels between the third (2005) and fourth (2015-16) National Family Health Surveys (NFHS) was less than one per cent and there was no improvement in terms of stunting, underweight and wasting, with an increase found among under-five children between NFHS-4 and NFHS-5 (2019) (International Institute for Population Sciences and ICF, 2021).

Although Kerala's infant mortality and maternal mortality are the lowest in the country, with rates comparable to that of developed countries, it is not the same for malnutrition. Levels of under-five malnutrition in Kerala in NFHS-5: stunting (low height-for-age, indicating chronic undernutrition): 23.4%; wasting (low weight-for-height, indicating acute undernutrition): 15.8%; underweight (low weight-for-age): 19.7% (International Institute for Population Sciences and ICF, 2021). Tribal and Dalit (very low-caste) populations in Kerala, have a much higher prevalence than the state average (Jaleel et al. 2023; Retnakumar and Krishnakumar 2020; Perayil and Mohandas 2025; Arun-Krishna and Sriyayanth 2022).

Kerala is well appreciated globally for its historically egalitarian development and it is a front runner in India in 14 out of 17 Sustainable Development Goals (SDG). Kerala ranks first in the SDG India Index, National Multidimensional Poverty Index, and State Health Index, reflecting its strong progress in poverty reduction (SDG-KERALA 2025). The state leads in SDG 2 (Zero Hunger) and originally aimed to eradicate extreme poverty by 2025 (The Hindu 2023). Nevertheless, the state's stagnation in improving child nutrition outcomes raises critical questions about the effectiveness and prioritization of policy implementation.

The present study explores and attempts to throw light on this paradox — a state with near-universal ICDS coverage and high literacy levels but limited progress in reducing child undernutrition. By examining the ICDS from the perspectives of both frontline service providers and policymakers, the research highlights the often-overlooked operational and structural challenges that hinder the program's impact.

METHODS

This qualitative study is part of a more extensive study conducted on undernutrition among children below five years by the first author. The study aimed to understand the multidimensional determinants affecting malnutrition among children belonging to disadvantaged social strata in Kerala. We employed multiple methods, both quantitative and qualitative. The quantitative phase of the study included a survey among children below five years from 24 randomly selected AWCs of three districts in Kerala namely Idukki, Thiruvananthapuram and Kasaragod. A secondary analyses of the India Human Development Survey were also conducted. The detailed methodology is discussed elsewhere (Jayalakshmi and Srinivasan, 2021a). The findings of the survey and secondary data analyses have been published in

a series of publications (Jayalakshmi and Kannan 2019a; 2019b; 2021b). The present paper culminates the findings of qualitative phase of the study which include key informant interviews, document analysis and field notes. Surveys and interviews were conducted between October 2018 and January 2020.

The present study is based on in-depth interviews were conducted with service providers and policy makers, reflecting upon the context and actions of informants while conducting interviews. Service providers of the ICDS included AWWs, ICDS supervisors, Child Development Project Officers and District Programme Officers. Policy makers included representatives of Local Self Government Institutions and Members of Legislative Assembly of respective study areas. Table 1 depicts the list of key informants interviewed in the study.

The AWWs were interviewed at their respective AWCs at a time convenient for them, after taking informed consent. For other key informants, prior appointments were taken by phone to visit them at their office. In case of multiple cancellations, telephonic interviews were conducted in eight out of 30 cases.

Table 1. The list of key informants interviewed and documents analysed

Key informants	Number of interviews
Anganwadi workers (AWW)	12 (six each from urban and rural areas)
ICDS supervisors	5
Child Development Project Officers (CDPO)	4
District Programme Officers (DPO)	2
Representatives of Local Self Government Institutions (LSGIs)	4
Members of the Legislative Assembly (MLA)	3

The pretested interview guide used in the study consisted of general questions to assess knowledge about nutrition and related concepts (applicable to all key informants) and specific questions in accordance with the respective area of their functioning.

The list of documents analysed include ICDS Manual for District-level Functionaries (2017) by the Ministry of Women and Child Development, Legislative Assembly questions raised in the Legislative Assembly of Kerala from 1 January to 31 December 2018. The ICDS Manual for District-level Functionaries (2017) intended to facilitate the implementation of ICDS reforms at the district, block and village levels as part of the reforms envisaged under the National Nutrition Mission popularly known as POSHAN Abhiyaan (Ministry of Women and Child Development, 2017). Questions asked about nutrition, ICDS, and the nutritional status of marginalized populations in the Legislative Assembly of Kerala, popularly known as 'Niyama Sabha', from 1st January to 31st December 2018, were analysed. The documents were analysed using a checklist that included specific purpose of the document, nutrition-specific interventions envisaged, and the implementation process.

A field diary was maintained by the first author throughout the period of data collection. Key observations

from the field, especially regarding the location, building, infrastructure of the AWCs are recorded in the diary and triangulated with data from key informant interviews and document analysis.

The transcription and translation of interview data was done by the first author. The translated transcripts were read and re-read. Manual coding was done under the supervision of the second author and the themes that emerged were triangulated with findings from surveys, document analysis, and content analysis of the field diary. The themes that emerged from interviews and document analyses were merged wherever applicable and are described in the results section.

Ethics clearance was obtained from the Institutional Ethics Committee, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram (reference number IEC/1272 dated September 6, 2018). Written and/or Verbal informed consent was obtained from all subjects. Verbal consent was witnessed and formally recorded. All interviews were recorded with the participants' consent. The privacy and confidentiality of the informants were maintained throughout the study by masking their identity.

RESULTS AND DISCUSSION

BACKGROUND CHARACTERISTICS OF THE KEY INFORMANTS

The mean age of the AWWs was 48.2 years. All of them were married except for one who was a widow and lived alone. The mean years of service was 21.9, ranging from two to 32 years. The worker with the least experience had attended neither the orientation nor the refresher programmes.

ICDS supervisors' mean age was 42.6 years. Of the five participants, four graduated and were direct recruits. The mean years of services were 7.8 years, ranging from three to 17 years.

The mean age of CDPOs was 52.8 years. All of them were direct recruits. Mean years of service was 23.5 years ranging from 18 to 27 years. Of two District Programme Officers, one was 55 years old and the other 52 years old. Both of them had more than 25 years of service. Seven political representatives, including four of LSGIs and three MLAs, were interviewed in the study. Panchayat presidents and Village Health, Sanitation and Nutrition Committee Members of municipalities and corporations were interviewed, as they represented LSGIs. Their mean age was 55.3 years, ranging from 34 years to 67 years. Three of them had an education up to 10th standard and one graduated. The mean age of MLAs was 47.3 years. One was a woman, and the other two were men. All of them were graduated.

ISSUES WITH INFRASTRUCTURE AND SUPPLIES

A total of 24 AWCs were studied for this exercise. All except three in Idukki were working in their own buildings. Two AWCs from the urban areas of Idukki were functioning in rented buildings, and one from the rural area was situated within a rubber estate. Electricity was not available in this centre. The room space was reported to be inadequate in AWCs where there had been an increase in children attending the preschool.

The so-called social distance from the sites where the AWCs function mattered in terms of the utilization of the services. The affluent parents refused to send their children

to attend AWC when it is located in a colony of people belonging to a low socio-economic stratum. An AWW from Idukki mentioned,

"As this centre is located in the colony area (residential areas most often inhabited by people from low socio-economic strata), parents from other affluent areas do not want their children to mingle with children from the colony. They have apprehensions that the colony is not safe due to prevalent alcoholism. They do not respond properly if I call them for any purpose."

Other challenges faced include a lack of proper water supply. Almost all AWCs had water shortages in the summer season. Two AWCs in coastal areas of Thiruvananthapuram lacked drinking water facilities. They depended on water brought in tankers by private providers. One vessel of around 10-15 litres, locally known as 'kudam', is sold at a rate of ₹5/ (US\$ 0.071 equivalent at the time of the study). The AWW in charge reported that she buys two 'kudam' daily. The tanker sometimes, especially during summer, comes only on alternate days. Water shortage, along with hot weather, will have serious implications on the hydration of children living in this area.

All AWCs had two weighing machines (one analogue/mechanical and one Salter weighing scale). Periodic calibration of equipment was not done in any of them. Heights of children were reported to be measured by writing the height measures in centimetres on the wall, which is highly unreliable. No AWCs visited in this study had equipment for measuring heights, although ICDS documents kept at the centres claim they do.

Another serious concern raised by the AWWs was the out-of-pocket expenditure to run AWCs daily and the considerable delay in reimbursing it or not reimbursing at all. The Civil Supplies Department under the Government of Kerala provides food grains for supplementary nutrition for preschool children. Most often, AWWs receive the money needed to purchase food grains; however, sometimes, they have to pay from their pocket. Further, they spent money on vegetables and ghee, paid rent and electricity bills, and paid for conducting various events on Independence Day, Republic Day, etc.

An AWW from rural Thiruvananthapuram:

"I buy vegetables when I come in the morning. Most often, I have to pay from my hand. With this high price, it isn't easy to manage. It is based on attendance. So when we calculate, we can spend only 60 paise per day for one child. How can I buy enough vegetables with such a small amount?"

AWW from Kasaragod:

"I spend money for celebrations on admission day, Independence Day, Republic Day, etc. from my pocket. The normal practice is to collect money for such celebrations from the parents. But they hardly contribute. Ultimately, I end up spending my finances."

There was a scheme called 'Akshaya Pathra' in which mothers were requested to give any raw vegetable to their child attending preschool. However, the scheme was a failure in all AWCs.

The above findings highlight critical infrastructural, social, and economic barriers undermining the effective functioning of AWCs. The role of caste and class-based spatial segregation in the uptake of public services reflects Bourdieu's theory of social capital, where perceived differences in status influence social interactions and access to shared resources (Bourdieu, 1986). The location of AWCs in low-income areas is a reflection of the fact that ICDS was targeted only to low-income families. However, if AWCs are moved to more affluent areas, barriers could arise for lower SES participants; therefore, we believe it is best to leave them in low-income areas.

The lack of basic infrastructure—like proper buildings, electricity, clean drinking water, and reliable anthropometric equipment—violates core service standards outlined by the Ministry of Women and Child Development (MoWCD, 2019). The third state-wise progress report on the Prime Minister's Overarching Scheme for Holistic Nourishment (POSHAN) Abhiyaan also stated that the efficiency of weight and height measurement in Kerala is poor (NITI Aayog, 2020). Similar problems were found in an ICDS assessment done elsewhere (Thomas et al. 2015). Without functional infrastructure, AWCs cannot fulfil even their basic mandate of growth monitoring and nutritional supplementation. Infrastructural audits must be deployed urgently and then routinely.

ISSUES WITH SERVICE PROVIDERS

FAILURE TO ATTRACT AND RETAIN CHILDREN IN AWCs

There has been a huge reduction in the number of children attending preschool in recent years. Another study from Punjab also reported underutilization of ICDS services (Jain et al. 2022). Children are dropping out from AWC to pursue education by attending the kindergarten system, a privately-run early childhood education model that bridges the gap between home and formal schooling and is popular in India, especially in Kerala. In addition, play schools for children below three years are also rising. As opined by the AWWs, this is mainly attributed to the divergence between services provided and parents' expectations. Primarily, parents want to provide better education for their children. However, their understanding of 'better education', according to AWWs, is teaching their children to read and write English from a very early age.

The working hours of AWC are another important issue that emerged from the interviews. These conflicts related to programme objectives and parents' expectations led AWWs in a helpless position to persuade parents to utilize the services of AWCs.

An AWW from Kasaragod pointed out that the parents consider the children's education a 'status symbol':

"Parents prefer their children to be in an attire which has uniform, tie and shoes, and going in a school bus and schools also promise that they will make their children read and write English. Parents also prefer their children could speak in English. Hence, I started teaching children the alphabet, though it is not part of our syllabus. Mothers verify with their children what they have learned at Anganwadi centre back home."

an AWW from the urban Thiruvananthapuram had a different opinion on the decreasing number of children:

"The working hours at the Anganwadi centre are not convenient for working parents. In my area, many women work as domestic help in the city. We generally close the centre by 3.30 pm every day and go for house visits. However, parents return after 5 PM. Most do not have grandparents at home to take care of the child. In such instances, we are helpless to blame parents for sending children to play school or daycare centre which opens till 9 pm."

An AWW from urban areas of Idukki district: "It is difficult to deal with some women, especially when they are a few degrees affluent and educated. They question the quality of Nutrimix. Since they don't avail our services, they respond discouragingly when we call them to inform them about mothers' meetings or any other critical things."

The records and the interactions with AWCs confirmed that the children drop out of AWCs or do not attend for various reasons. The total number of severely underweight children from the 24 AWCs in the study was five as per the records maintained in AWCs, and the number of moderately nourished children was 74, whereas a survey among 600 children randomly sampled from the same AWCs showed a prevalence of 25.6%, 24.6% and 14.5% respectively for moderate stunting, underweight and wasting (Jayalakshmi and Kannan. 2021). The recent National Family Health Survey also showed that the malnutrition levels of children below five years in Kerala have not improved (International Institute for Population Sciences (IIPS) and ICF. 2021).

IMPROPER MONITORING OF TAKE HOME RATIONS

All children attending our sample of AWCs receive a sweet made of sesame seeds and jaggery; both are natural sources of iron. In urban areas of Thiruvananthapuram, where the POSHAN Abhiyaan reforms were implemented, children received one glass of milk daily and two boiled eggs a week. Upma made of semolina, ghee, vegetables (mostly carrot) and black gram was also given to them daily. The menu for the lunch varied widely across and within districts. It was mainly boiled rice with one curry (which changes daily) and one thoran (made of vegetables) or rice gruel and green gram (lentils).

Children aged six months to three years received fortified food as take-home-ration (THR). Children with severe nutrition deficiency get a double THR. It is prepared and supplied by Kudumbasree units (Self Help Groups) named 'Amruthampodi'. Many times, parents refuse to take THR, saying "their children don't like to have it".

While AWC meals align with national nutrition guidelines and support child growth, inconsistent implementation and lack of standardized menus lead to unequal access (Sabat and Karmee. 2021). The THR program faces low acceptance due to issues of taste, cultural fit, and lack of monitoring, with quality inconsistencies reported across suppliers despite local production efforts (Sarwal et al. 2022). There is a need for standardized meal plans and regular audits to ensure uniform nutritional provisioning. Variability can compromise dietary adequacy and perpetuate regional health disparities.

BLAMING MOTHERS FOR CHILD'S UNDERNUTRITION

It was observed that mothers were delegated the responsibility of managing undernourished children and blamed for not following instructions.

an AWW from Kasaragod:

"It is all about how we train the children. Mothers are only to be held responsible for their children's eating habits. At our centre, all children eat what is provided. Sometimes, mothers are surprised to see this, as they do not eat properly at home."

While discussing the undernourished children, a supervisor from Thiruvananthapuram said, *"There are underweight children in my area, and many of them live in the coastal area. The community setting in the coastal area is different from the mainland. In general, mothers are very young, with lower educational qualifications that many did not complete even school education. It makes the Anganwadi workers try hard to educate them. Most often, their efforts go in vain."*

An AWW from Idukki district said about an undernourished child:

"The child's weight at birth was already low. Knowing that, I clearly instructed the mother to bring the child once a month to collect the food and monitor the weight. But she hardly visited the centre. I reminded her of this during my recent house visits. If the parents are not showing interest in their child's health, we are helpless."

The findings highlight a gendered bias in accountability, with frontline workers often blaming mothers for child undernutrition despite the lack of conclusive evidence on mothers' role (Santoso et al. 2019). Overlooking broader socio-economic and structural factors, reinforces critiques that maternal behaviour is disproportionately emphasized. Additionally, the communication style of AWWs tends to be directive rather than participatory, which undermines program effectiveness; evidence suggests that respectful counselling and community engagement lead to better maternal adherence and child outcomes.

DELIVERING SERVICES WITHOUT CONVICTION

Many AWWs were not convinced about the poor nutritional status of children. One from Kasaragod, referring to a severely undernourished child as per the growth chart:

"The boy has a little less weight. This may be hereditary. His father is very lean. We closely observe the growth of the child. Based on my experience, after a certain point of time, the children will gain weight."

Another AWW from the Kasaragod district mentioned that children make up their growth over time: *"Children are growing in front of us, isn't it? After sometime they will gain weight by themselves'.*

In the above scenario, the AWW might have been referring to catch-up growth in malnourished children, a well-researched phenomenon (Desmond and Casale. 2017). However, catch up growth occurs mainly when some intervention is applied; and long-term problems can result from waiting for too long, such as the risk of stunted children developing chronic diseases in their adulthood (Hoffman et al. 2000; Popkin, Richards, and Montiero. 1996; Sawaya and Roberts. 2003). Although the lack of conviction of AWWs is attributed to

their ground-level experiences, it may miss out on malnourished children who need continuous monitoring and timely interventions.

THEORETICAL KNOWLEDGE ABOUT NUTRITION VERSUS ACTUAL PRACTICE

The theoretical understanding of nutrition was found to vary among service providers, possibly reflecting their education status. It was observed that the higher-level service providers had good conceptual knowledge of nutrition, malnutrition and its causes. Whereas AWWs seemed to know by heart what they had learned in training sessions, and they had difficulties recalling the terms when interviewed. Being the grassroots level workers, AWWs, in reality, are tasked to address the problem of malnutrition without fully understanding the mission which is entrusted to them. It is important to offer proactive training sessions to give all the stakeholders an understanding of nutrition, malnutrition, its causes, and effects and integrate this knowledge into their day-to-day activities and goals of the ICDS mission.

A CDPO from rural Idukki who graduated in BSc Home Science answered,

"Nutrition is the utilization of food by our body for producing energy that is required for a child's growth and help her or him perform other functions"

A supervisor from Idukki, on causes of malnutrition:

"As I mentioned, malnutrition is directly linked to the food that we consume. No parent would let their child be hungry, and they would give what the child wants. What we observe in Attappadi (an area in the Palakkad district of Kerala, reported to have a high prevalence of child undernutrition and mortality) is the other side of the coin, where the parents are too poor to feed their children. Their health is compromised even before birth as the mothers are also undernourished."

In contrast to the above, AWWs had varying levels of understanding of nutrition, malnutrition, and its causes. They had apprehensions not to give responses contrary to the expected or right answers. An AWW from a rural area of Idukki reacted immediately, when asked about the term 'nutrition',

"I don't remember. I may require some time to prepare."

On further explorations with probing, she asked, "Do you mean the food required for the child's growth?"

An AWW from Thiruvananthapuram: *"Nutrients are vitamins. I remember all these things from my classes; it's been two years since I learned them. I am not able to recall all those terms now."*

Responding to the question of how malnutrition occurs, An AWW from a rural Idukki:

"Poverty is the main reason for malnutrition. Fathers of the majority of children in my area are daily wage labourers, and they hardly get work during rainy seasons."

An AWW from the same district:

"It is important to have a good relationship between both parents. One day, a child in my centre witnessed her father beating her mother. In response to that she kept herself silent and did not eat food at the centre. Later in the day, she forgot all that and started playing with other children."

When I asked her why she was silent during the morning, she replied, "Her father slapped her mother."

An AWW from Kasaragod, when talking about the causes of malnutrition: *"Many mothers refuse Amruthampodi as their children do not like it. But, at home, they feed children with marketed products such as [brand name] and so on. They say children do not drink milk if these are not used."*

It is clear from the above narratives that AWWs lack adequate understanding of the concept of nutrition/malnutrition, as documented elsewhere as well (Dogra 2017). This would have an adverse impact on the identification of malnourished children in the community. However, their insights into causes of undernutrition—such as poverty, food preferences, and family dynamics—reflect valuable grassroots experience. Strengthening AWWs' conceptual knowledge through regular, context-sensitive training is essential to empower them as effective frontline nutrition workers.

EXCESSIVE WORKLOAD AND OTHER PROBLEMS WITH WORKING CONDITIONS

The working conditions of AWWs and higher-level key informants were not the same. The problems stakeholders raise at various levels include time-consuming maintenance of registers, additional work given, inadequate human resources, and frequent transfers and meetings.

The consolidation of data at each level, the tallying of data from primary, secondary and tertiary levels of the hierarchy, is the main challenge reported by all the stakeholders. A supervisor from Idukki:

"I am supervising 33 Anganwadi centre. Maintaining the data of all these centres is the major challenge we face. Nevertheless, we must enter the data online per the latest guidelines. Out of four supervisors in this office, only two, including me, are equipped for the same. Hence, I end up entering the data all day rather than doing my work."

Anganwadi workers felt maintaining registers was a Herculean task for them. One AWW from rural Idukki said,

"We have 11 registers to be maintained regularly and all comprises numbers. On a normal day, we spend mornings with children in the centre. I get time to fill the registers only after lunch when the children sleep. However, I can never finish them during that time and may carry them home for the purpose of completing them. It is a headache!"

AWWs are expected to do real-time data entry through the tablets distributed to them under the ICDS mission. However, it has not replaced the older system of manual maintenance of registers. In effect, they have to do double data entry, which further adds to their burden.

In Kerala, the ICDS functions under the Department of Women and Child Development, which was formed by bifurcating the Department of Social Justice in 2017. However, this division occurred only at the top level, consequently, the ICDS supervisors have additional responsibilities as the implementing authority of activities under the Department of Social Justice too. As the only government-paid staff present in most villages, AWWs are

often utilized for different field level work under the department. This is an added burden and interferes with their nutrition-specific work. A supervisor from Kasaragod said,

"We are the implementing officers of the Social Justice Department. We have to do multiple other things such as disability surveys, surveys for older people, visiting orphanages and elderly homes, and sending reports. Sometimes, I feel 24 hours are not sufficient for all these."

Shortage of manpower and inadequate training further compromise the working conditions of ICDS service providers. A CDPO from Idukki mentioned the lack of staff with training in essential computer skills:

"There are only seven staff in this office, including me, four supervisors, one clerk and a peon. Supervisors have to go to their respective fields. However, two of them are not going to field as they are entering the details online. The other two are not technically equipped with computers. None of them were given any training on the same. I cannot take a chance by letting them do the data entry."

The absenteeism among employees was also noted, especially from Kasaragod, followed by Idukki, and it is mainly due to the unwillingness to work in remote areas with minimum facilities. A DPO from Kasaragod:

"There are 64 supervisors in this district, but 24 of them are on leave. Consequently, the burden falls on those who are available and ultimately their work also gets affected."

CDPOs and DPOs reported frequent transfers and meetings. Frequent transfers prevent settling down in a place so that the service providers can understand the community and need-based services could be provided. In addition to this, the frequent meetings, usually held at Thiruvananthapuram, the capital city of Kerala, also cause unstable working conditions.

A DPO from Idukki:

"I came to Idukki last year (2018). Before that, I was in Pathanamthitta for nearly two years. Frequent transfers are very troublesome, especially when you are settled and have children. Here I am staying in a hostel, and every week I have to travel to my home. The entire family has to compromise on many things. In addition, there are multiple meetings, most of which are held at Thiruvananthapuram."

The rigid hierarchical structure with minimal flexibility poses another hurdle preventing AWWs from making decisions. An AWW from urban Thiruvananthapuram:

"The Health, Sanitation and Nutrition Committee at the corporation level and the monitoring committee, which includes parents, meet regularly. As such, I cannot make decisions about the Anganwadi functions. I always need to consult them and act accordingly."

Classified by the Government of India as honorary workers, the AWWs unanimously said that their monthly honorarium is not proportional to their work. An AWW from rural Idukki:

"After working for many years, our income increased marginally. Please advise me who can survive with Rs. 10000/- (US\$ 142 equivalent at the time of the study) during this period. This amount is not even sufficient for food expenses. At home, I am the only earner and have to

support my children, who are studying at school. It is very difficult to meet my ends.”

Apart from the low salary, many sometimes have to pay from their pocket as mentioned elsewhere. This is mere exploitation by not providing support and making them pay from their pocket (some of which is not reimbursed) while they are paid a meagre amount as compensation.

Another alarming observation is the excessive importance placed on documentation. Meanwhile, at each level an effort is made to showcase no problematic issues in their respective areas.

MOTIVATING FACTORS

Security of a government job is the primary motivational factor for all service providers, including AWWs, even though they are honorary workers. One of the primary motivating factors for the AWW is the respect they receive from the community. One AWW from Thiruvananthapuram:

Remuneration is exceptionally less, compared to the workload. But it is better than going as sales girls and all. Many women I know who are my age go to textiles and other shops as salesgirls. They are not even permitted to sit and get less compensation than ours. I moreover get regard from all, as you know, everybody calls me 'teacher'.

In addition, all AWWs continue to do their job despite many hurdles because the time spent with the children provides them immense happiness. An AWW from Thiruvananthapuram:

"The time spent with children is the most relaxing time for me. We will disregard all agonies in our individual lives when we see their grin and play. In that way, I am very satisfied."

POOR MULTI-SECTORAL COORDINATION

The ICDS Manual for district-level functionaries calls for the convergence of nine different ministries and existing schemes with AWCs as the focal point (Ministry of Women and Child Development, Government of India 2017). We observed that the ICDS did coordinate with LSGIs, the health system, and the Public Distribution System (PDS) even before this. The LSGIs provide the funds, and the PDS distributes the food grains. This was universal across the state.

All 12 AWWs had the same story regarding the cross-sectoral convergence. There is a Village Health, Nutrition and Sanitation Committee at each LSGI. However, no AWW or other key informants could share more information about it apart from monthly meetings. The only focus in such meetings is tallying the data from multiple levels rather than critically looking at and managing issues of ICDS functioning and of undernutrition per se. Apart from the meetings, these departments are functioning as stand-alone programmes.

Further, the supervisors, CDPOs and DPOs have multi-sectoral meetings at their levels which also only focus on tallying data. Service delivery at these multiple meetings receives too little attention.

The stakeholders of Public Distribution System were also interviewed. They were neither trained about nutrition nor aware about nutrition problems in their areas.

The Members of the Legislative Assembly (MLAs) are expected to be aware of critical issues in their respective

areas. In theory, they can coordinate with the LSGIs and intervene with their own funds, wherever applicable. However, they were found to have no link with ICDS in general.

Answering a question on cross-sectoral convergence (in the Legislative Assembly), it was clear that the status quo would be maintained, as the government intended to engage the respective Health, Nutrition and Sanitation Committees at panchayats, municipalities and corporations at the ground level.

Ideally, as the funding agency, the LSGIs should engage actively with ICDS where problems/inadequacies are identified. However, if the AWW/ICDS supervisor says there is no undernourished child in her centre/jurisdiction, there the story ends. There will be no active involvement from anyone to confirm it.

The common passive orientation of relevant officials is illustrated in this statement from a Panchayat president from Idukki: "Anganwadi worker is a member of the Health, Nutrition and Sanitation Committee. She will contact us whenever she needs any help. We also review the reports they submit."

The poor cross-sectoral convergence is confirmed by the NITI Aayog progress report for states on implementing POSHAN Abhiyaan; Kerala was one of the states that scored low in cross-sectoral convergence (NITI Aayog. 2019; 2020).

LOW POLITICAL WILL

We assessed the political will to tackle undernutrition among children in Kerala through interviews with MLAs and LSGI members and content analysis of questions and answers raised in the LA of Kerala. Out of 20,386 questions asked in the LA during the period, only 66 addressed topics such as nutrition, malnutrition, functioning of ICDS, and the nutritional status of marginalized populations ("Business-Kerala Legislature". 2020). They addressed infrastructural development, funding conflicts with the central government, training and welfare of AWWs, and the nutritional status of children from tribal communities. It was reported that the training programmes for AWWs were temporarily stopped from 1st January 2018, as the central government fund was not released, which was ascertained from the in-depth interviews with AWWs as they have not received any training since 2017.

The following programmes were implemented to prevent malnutrition among children from tribal communities: 1) first 1000 days for children 2) community kitchen in Attappady for providing cooked food, 3) fortified nutritious food for children and adolescent girls, 4) village millet scheme to promote the traditional farming culture of tribal population and 5) provision of food grains during the rainy season and the months of scarcity. However, no evidence was available as to whether these programmes achieved their objectives or not. No other question in the LA was related to the nutritional status of children, including other groups at higher risk such as Dalits, fisher folk, or plantation labourers.

Interviews with MLAs and LSGI members revealed that nutrition was the responsibility of ICDS service providers and was not a prioritized agenda item. An MLA from Idukki, when discussing the high prevalence of undernutrition among children in the district, as per the National Family Health

Survey-4:

“It didn’t come to my notice. The high rates of undernutrition in Idukki could be due to the many scheduled tribe populations in this area. In addition, plantation labourers are also there. However, it would have come to my notice if there were a serious issue.”

A Village Health, Nutrition and Sanitation Committee member from Kasaragod:

“The tribal population are more in my area. Unlike in the past, many have jobs and lead a good life. However, in some areas, the situation is still worse. However, many of their welfare activities are done by the Tribal Welfare Board.”

These findings point to a broader invisibilisation of nutrition in the political narrative. Despite Kerala’s progressive social indicators, its surprisingly high levels of malnutrition are rarely addressed in legislative discussions or electoral agendas. This indicates the need for civil society advocacy and evidence-based lobbying with a rights-based approach to bring nutrition into political focus—not just as a welfare issue, but as a foundation for health, human capital formation, and economic growth (Ayala and Meier 2017; Madhanagopal 2023). Policymakers should be sensitized to the long-term benefits of investing in early childhood nutrition, particularly among tribal, Dalit, and coastal populations where the worst disparities persist.

LIMITATIONS OF THE STUDY

The data used in this paper are five years old and may not reflect situations where recent developments have occurred. Since 2021, Anganwadi services have been operating under Saksham Anganwadi and POSHAN 2.0 (Mission Poshan 2.0), aiming to upgrade 200,000 centres by 2026 with LED screens, water purifier, nutri-gardens, material for Early Childhood Care and Education (ECCE), BALA (Building as a Learning Aid) Paintings (Ministry of Women and Child Development, n.d.). As of April 2025, 19,004 AWCs have been upgraded nationwide, with around 90 in Kerala designated as ‘Smart AWCs’ (Ministry of Women and Child Development 2025). A recent interaction (orientation for students) of the first author with an ICDS supervisor and a Child Development Project Officer in Kasaragod highlighted challenges that still have not been addressed such as dual paper-digital data entry and the double duty under the Social Justice department and Women and Child Development department, even after eight years of POSHAN Abhiyaan 1.0. The smartphones distributed to AWWs are not working in many instances, or do not have adequate RAM to store the large amount of data required. Real time data entry through the digital platform called POSHAN Tracker may not be timely, often creating confusions at multiple levels. Further, the frequent meetings called online/offline by different stakeholders for the same data are also affecting the quality service delivery. Reliable data regarding capacity building programmes for various stakeholders were still lacking.

CONCLUSION

We set out to understand how malnutrition is placed in Kerala’s political agenda from the perspectives of service providers and policymakers. The scenario in Kerala with respect to malnutrition among children is quite paradoxical.

Despite spending on infrastructure development, the number of children utilizing the services is decreasing.

It is clear that frontline ICDS workers often face poor working conditions, insufficient training, and inadequate institutional support, which significantly affects service delivery in marginalized areas. All these issues have been consistently reported in the past (Chudasama et al. 2016; Sajan and Navya 2024; Damor 2024). This non-conducive working environment eventually interferes with effective service delivery to the community and with the very objective of the ICDS scheme.

To address this, there is a pressing need to revamp capacity-building through participatory, context-linked training and mentorship models. Intervening with certification programmes, career progression pathways, and platforms to share innovations can strengthen AWWs’ role as community leaders which in turn would enhance programme outcomes (Damor 2024; Sajan and Navya 2024). Equally important are policy reforms that ensure dignified working conditions, including streamlined reporting systems, fair remuneration, and social protection, to sustain a motivated and effective workforce (Damor. 2024). Clearer accountability frameworks, regular joint reviews, and decentralized budgeting through panchayats could enhance coordination and responsiveness to local nutrition needs. Kerala has a conducive environment to lead such movements; it could offer a blueprint for ICDS reform nationally.

The poor political will of both central and state governments is reflected in cuts in the budget for ICDS, and, from the central level, the lack of timely disbursement of allocated budgets, causing training for AWWs to stop. Malnutrition is not a political priority, and the implementation of ICDS is very passive, with more focus on perfect documentation rather than operationalization. It is high time for both central and state governments to consider the ground realities such as of AWC facilities, parents’ expectations about their children’s education, and the excessive work burdens of AWWs and ICDS supervisors. Reforms without considering them will not help to achieve their objectives. In effect, the ICDS programme currently serves just as an agency to distribute nutritional supplements rather than providing comprehensive nutritional services.

AUTHOR CONTRIBUTIONS

JR and KS contributed to the conceptualization and methodology of the research. JR was responsible for data curation, formal analysis, and investigation, conducted under the supervision of KS. JR prepared the original draft of the manuscript, which was subsequently reviewed and edited by KS. All authors approved the final version and consent for the publication.

CONFLICT OF INTEREST

The authors declare that they have no other potential conflicts of interest.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN SCIENTIFIC WRITING

Nothing to disclose.

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