

SUBJECT I

REASSESSING AGRI-FOOD SYSTEMS FOR SUSTAINING NUTRITIONAL FOOD SECURITY: EVIDENCE, IMPERATIVES AND WAY FORWARD

Is ICDS Intervention in Telangana Dwindling? A Quest

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ABSTRACT

India struggled with food security when the Bengal famine struck in 1942-43. Since, then many policies have been updated and introduced to tackle food security. One such was the public distribution system (PDS) in the 1960s to ensure staple foods like rice, wheat, and edible oils are always available through fair price shops. Concurrently, , pre-school children, pregnant women, and lactating mothers living below the poverty line were at high risk of malnutrition resulting from inadequate food intake and repeated episodes of infection. Also, malnutrition leading to lack of immunity was high, resulting in an increased infant mortality rate. At the beginning of 1970, a detailed review of the health and nutrition programme was undertaken by the Government of India. In India's constitution, children were given a special place. In the year 1974, the National Board for Children was set up with the Prime Minister as its Chairman, to monitor the progress of the programme for the care and development of children. Several programmes have been established since Independence for the well-being of children. Thereafter, it was decided to develop an integrated approach to provide essential health, nutrition, and education services to pre-school children for their optimal development. A new experimental project, the Integrated Child Development Services (ICDS), was launched in 1975, a key instrument in advancing the nutrition security agenda among the most vulnerable groups in India viz. women and children. The National Food Security Act (NFSA) in 2013 further strengthened the commitment towards food security. As per the ICDS project, the NFSA identifies Anganwadis as responsible for ensuring critical nutritional provisions to pregnant women, lactating mothers, and children with the primary objective to improve the nutritional and health status of children in the age group 0 to 6 years. In the above context, the paper aims to explore the efficacy of such programmes by considering the Anganwadis located in slum areas of Hyderabad and villages in Telangana. By drawing a comparison, this study looks into the efforts of the scheme's implementation and identifies that the Anganwadis located in the urban areas perform better with respect to nutritional indicators*than those in rural areas of Telangana.

Keywords: ICDS, Anganwadi Centres, Malnutrition, Nutrition Security, Telangana

JEL: I15, P36, Q18

I

INTRODUCTION

India is presently one of world's fastest-growing nations and a surplus of food grain production allows it to compete with developed nations. However, in the past, India has struggled to achieve food security. Since Independence, the challenges have changed but they still persist. From the Bengal famine during the colonial period and being a net importer of food grains in the early years of independence to the self-

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sufficiency in food grain production that resulted in the starting of the Green Revolution, India has come a long way. However, food and nutrition insecurity persist and India remains home to most malnourished population in the world.

In recent times, malnutrition is on the rise in India, particularly among women and children under the age of five. This calls for attention to nutrition security. The NFHS 4 and 5 reports indicate that the percentage of children under the age of 5 shows an increasing trend in anaemia, being overweight, and being severely wasted (Jyotishi and Sridevi, 2021). To add to this, there is a persistent caste gap among stunted children and the gap remains the same or increases as the age of the children increases. This affects the children in their education, cognition and other skills and impacts the future income and lifestyle of the child (Deshpande and Ramachandran, 2020). As a result, the government's involvement in ensuring food security and nutritional sufficiency becomes crucial.

Since Independence, the government has implemented several programmes, including the PDS, ICDS, Targeted PDS, mid-day meal programmes to name a few. These initiatives are part of the government's ongoing efforts to reduce food insecurity and improve the nutritional status of its citizens. However, India continues to struggle with issues like hunger, malnutrition, stunting and overweight children, which raises concerns about the effectiveness of the policies and their ability to meet requirements and address nutritional concerns. This paper aims to look at one such intervention programme to tackle food and nutrition security among children by evaluating the efficacy of ICDS programme. The study focuses on *Anganwadi* Centres (AWCs) located in slum areas of Hyderabad and villages in Telangana state. By drawing a comparison, the study analyses the scheme's implementations in rural and urban Telangana.

II

CONTEXT AND ISSUES FROM LITERATURE

In achieving food grain production sufficiency, the country left the importance of nutrition behind. As a result, India is facing the problem of malnutrition; in addition, stunting has not shown a decreasing trend since independence. Stunting among children below the age of five is either constant or increasing and this pattern has wide gaps across caste groups (Deshpande and Ramachandran, 2020). From 1998 to 2016, the caste disparity in stunting did not decrease. Deshpande and Ramachandran (2020) emphasise the importance of reducing this gap which in turn will affect later-life outcomes, including in education, health, lifestyle and cognitive skills.

Additionally, it is critical to realise that food and nutrition security encompasses much more than calorie intake when it comes to children's nutritional condition. In line with the expansion of the Gross Domestic Product, poverty has decreased across all social categories, but malnutrition is still widespread. It shows that the important aspects of nutritional health are lagging. Assessment of nutritional

status should combine diet survey, clinical examination, and socioeconomic assessment rather than solely relying on calorie consumption (Gopalan, 1983). There are many conceptual and practical issues with using calorie intake as a measure of malnutrition. There is a chance of overestimating children's calorie intake because it depends on the total amount of calories consumed by the family (Sukhatme, 1978). Pingali *et al.* (2017) pointed out that there is a need for a shift to a broader set of objectives of nutrition from the traditional cereals sufficiency.

The aspects which are crucial while assuring food security are availability, accessibility and affordability of food. Narayanan (2015) stated that the problem that the country is struggling with is the distribution and not the availability of food. The nation has surplus production and the government has undertaken numerous initiatives to increase availability but one of the key problems is access to food as the high food inflation in the nation makes it difficult for people to consume sufficient nutritious food.

Role of State through ICDS

The ICDS scheme, initiated in 1975 in India, is recognised as the world's largest child development programme and focuses on the comprehensive development of children, particularly in terms of health, nutrition, and education. To achieve its objectives, the ICDS scheme emphasises the importance of health and nutrition education for mothers, as well as providing pre-school non-formal education for children. The scheme also includes regular nutritional assessment and promotional healthcare services for children. Given the positive contributions observed from the scheme, the programme needs universal coverage (Tandon, 1983 and Balarajan and Reich, 2016).

The data presented in Table 1, highlights a positive trend in terms of the number of beneficiaries availing services under ICDS programme. It is noted during the period of 2005-6 to 2019-21 there has been an increase in the number of individuals benefiting from the ICDS programme, particularly from AWCs. The ICDS programme is designed to cater to the needs of pregnant women, lactating women, and children below the age of 6 years. It offers four essential services, including health checkups, supplementary food provision, preschool activities, and health and nutrition education. The increasing trend in beneficiaries for all these services, as observed in the data from NFHS 3, 4, and 5, signifies the growing reach and effectiveness of the ICDS programme. It indicates that a larger proportion of the target population is accessing and benefiting from the various services provided. The increasing trend in beneficiaries availing these services signifies the recognition of the ICDS programme's importance in addressing the health and developmental needs of pregnant women, lactating women and young children. It also reflects the efforts made by the government and relevant stakeholders to expand the reach and accessibility of the programme.

TABLE 1: PERCENTAGE OF BENEFICIARIES BENEFITTING FROM ICDS, 2005-06 TO 2019-21

(1)	NFHS 3 (2)	NFHS 4 (3)	NFHS 5 (4)
Availed any service from AWC	32.9	53.6	67.5
Supplementary Nutrition	26.3	48.1	62.1
Immunisation	53.2	39.8	53.2
Monthly Checkups	17.8	39.7	56.5
Regular Weighing	18.2	43.3	59.7
Pre School Activities	22.8	38.2	51
Children whose mothers received supplementary food:			
• During Pregnancy	20.5	51.4	66.4
• While breastfeeding	16.5	47.5	63.5
Children whose mothers received health check-ups:			
• During Pregnancy	12.3	42.9	63.1
• While breastfeeding	8.5	37.1	58.3
Health and nutrition education:			
• During Pregnancy	10.9	38.5	59.5
• While breastfeeding	8.3	35	56.3

Source: NFHS, various Rounds.

Research Questions and Objective

Despite the huge production, concurrently 224.3 million people are undernourished, 20 million children under the age of five are affected by wasting, 36.1 million under the age of five are affected by stunting, 187.3 million adult women are affected by anemia (OECD/FAO, 2022), under-five mortality rate is 41.9 per cent (NFHS, 5). While food production and the market are critical dimensions generally well discussed in literature, there is little knowledge on how food reaches the plate. The knowledge base is further inadequate in terms of various pathways, negotiations, choices and cultures influencing who eats what and why. What are the constraints in availing and accessing nutritious food? What role do the state and other institutions play in addressing under-nutrition? The primary objective of this paper is to understand the role of State intervention in addressing the problem of food and nutrition security of children in urban and rural areas.

III

METHODOLOGY

The study exclusively depends on the primary data. The structured questionnaire has been used for primary responding units, in ICDS centres, viz., Anganwadi Centres (AWCs) located in slum areas of Hyderabad and villages in Telangana State. Prima facie, the method for the selected areas was a deduction approach based on NFHS-4 and 5 and Comprehensive National Nutrition Survey (CNNS) (2019) Telangana. Telangana falls under medium nutritional insecurity which implies that 30-40 per cent of the children below five years are stunted (Gummadi *et al.*, 2021).

The selection of AWCs was based upon the areas with more concentration of marginalised and vulnerable population in Hyderabad. The primary data of AWC in Hyderabad was collected based on a structured questionnaire. Such areas are the slums in Shaikpet, Film Nagar and Khairatabad. These areas are peculiar as they exhibit a stark contrast between an affluent section of population and another segment of population that caters to domestic work in the wealthy households. Data has been collected on the basis of in-depth observations, focused group discussions and personal interviews of the respondents, viz., Anganwadi teachers, parents and staff.

The villages were chosen from the state average of stunting, wasting and underweight (based on NFHS 5), mean absolute deviation of these indicators, scaled by state average, have been considered for all the districts and they were ranked based on the combined sum so obtained. Further, two districts closest to the state average been chosen. From the selected districts, panchayat have been selected to study the selected AWCs. The study includes preschool children in the selected panchayats. Each AWC, under the ICDS scheme, has a complete list of pregnant ladies and children under the age of five, falling under their geographical jurisdiction. The sample size from the state was selected based on precision rule and confidence interval.

With the above mentioned method, below four villages have been chosen for the study (Table 2).

TABLE 2: SELECTED VILLAGES FOR THE STUDY

District (1)	Mandal (2)	Villages (3)
Jayashankar Bhupalapally Mancherial	Kataram Jaipur	Odipilavancha, Veerapur. Allipur Narva

Since the main objective was to assess the nutritional outcome of children, a direct method of nutritional assessment, namely, the anthropometric evaluation method, has been used. Inputs on weight, height and age of children are used to compute anthropometric failures among children in the study area, using World Health Organization child growth standards.

Urban Anganwadi Centre, Hyderabad

Telangana is one of the few states where a separate department functions for the development and welfare of women and children. In many states, these come under the Social Welfare Department. The broad mandate of the Department is to have holistic development of Women and Children. For the holistic development of the child, the department provides the ICDS providing a package of services comprising supplementary nutrition, immunisation, health check-up and referral services, pre-school non-formal education. There are 35,700 Anganwadi centers (AWCs) functioning in the State in 149 ICDS Projects (Department of Women Development

and Child Welfare, Government of Telangana). Table 3 provides an understanding on the list of AWCs been chosen for the study.

TABLE 3: BRIEF SKETCH OF ANGANWADI CENTRES

Place of the AWC (1)	Total of students (2)	Social Composition (3)
BJR Nagar	53	SC – 40%, BC - 50%, Minorities and others – 10%.
MG Nagar	15	SC – 50%, BC - 40%, Minorities and others – 10%.
Jnani Jail Singh Nagar	30	SC – 30%, BC - 40%, Minorities and others – 30%.
Ambedkar Nagar Padmalaya	31	SC – 5%, BC - 70%, Minorities and others – 01%

Source: Field Survey, 2022.

Food Menu for all the Anganwadi Centres:

For Children (6 months to 3 years): Rice-75gms, Dal- 15gms, Balamrutham-100gms, Snack (Soya Chunk Made Murukulu) - 20gms per day and 16 eggs per month. The snack is changed every day. The food is brought by the caterer “Manna Foods” from Uppal. The caterer brings the cooked food daily in the small truck and the food is received either by the teacher or helper in a vessel.

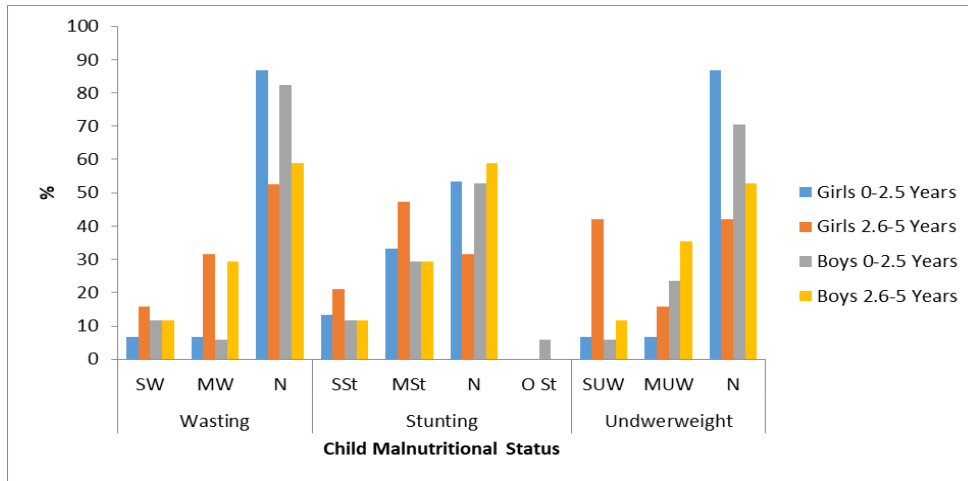
TABLE 4: NUTRITIONAL STANDARDS OF AWC

Category (1)	Type of meal (2)	Calories (kcal.) (3)	Protein (g) (4)
Children (6 months to 3 years)	Take home ration	500	12–15
Children (3 to 6years)	Morning snack and hot cooked meal	500	12–15
Children (6 months to 6 years) who are malnourished	Take home ration	800	20–25
Lower primary classes	Hot cooked meal	450	12
Upper primary classes	Hot cooked meal	700	20
Pregnant women and lactating mothers	Take home ration	600	18–20

Source: Kumar and Rai (2015).

Outcomes of the Urban AWC Study

The study has been focused on to bring out the differences in the implementation of ICDS intervention scheme in urban and rural areas of Telangana state. Figure 1 provides a picture on the child malnutrition status under the age 5 in all the three Hyderabad AWCs.

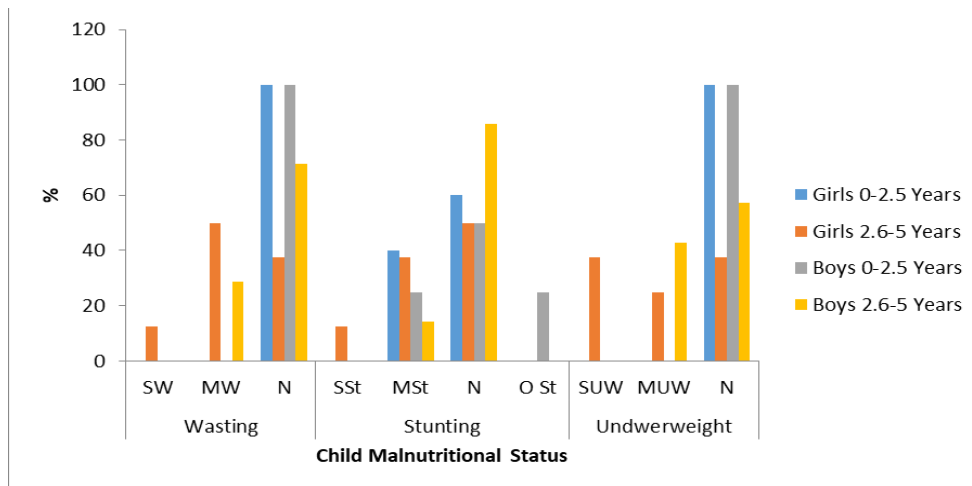


Source: Field Survey, 2022.

Figure 1: Hyderabad AWC - Under 5 years - All Children Malnutrition Status

It is evident that the children falling between the age group of 0 and 2.5 years are nutritionally equipped when compared with other age groups. However, underweight and stunting has been worrying in the growing age groups.

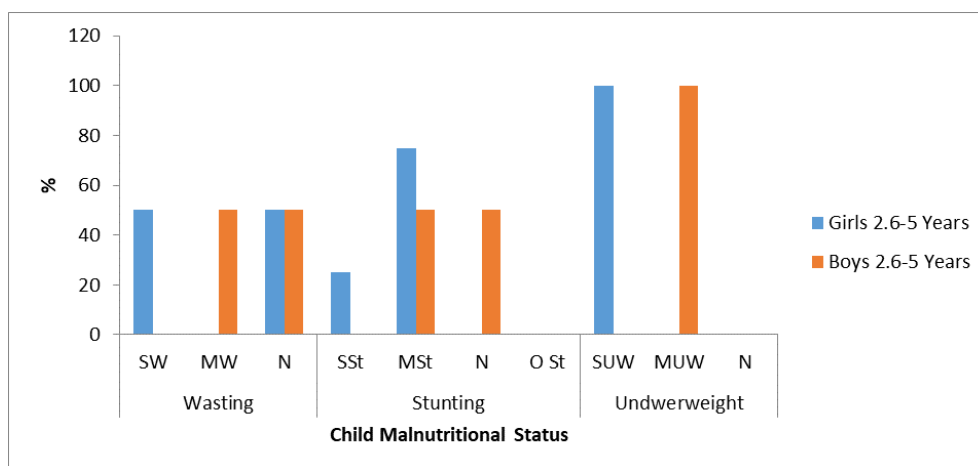
From Figure 2, it is evident that SC boys and girls in between the age group of 0 and 2.5 years are nutritionally balanced when compared with other age groups. However, wasting and stunting are prevalent.



Source: Field Survey, 2022.

Figure 2: Hyderabad Slum AWC - Under 5 years - SC Children Malnutrition Status

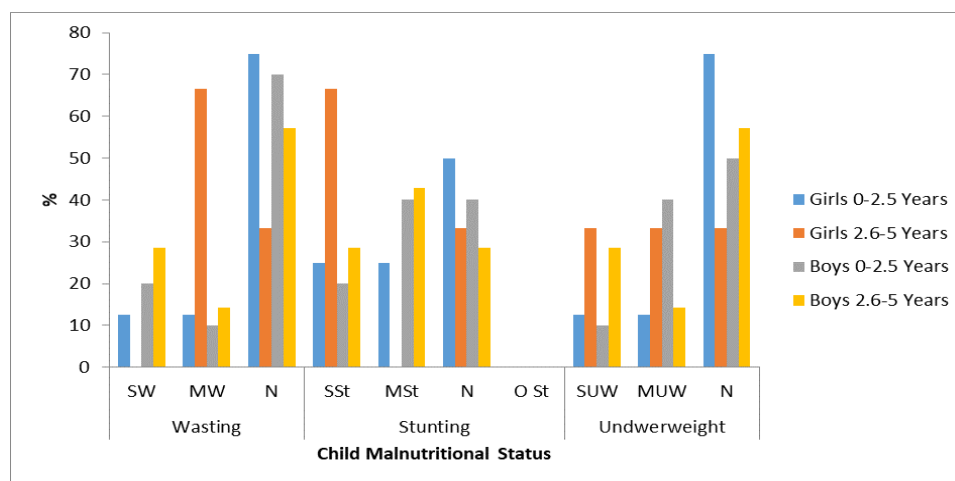
From the Figure 3, in the ST community, boys and girls in between the age group of 2.6 and 5 years have been enrolled in the respective AWC. The children are severely or moderately underweight at their respective age.



Source: Field Survey, 2022.

Figure 3: Hyderabad Slum AWC - Under 5 years - ST Children Malnutrition Status

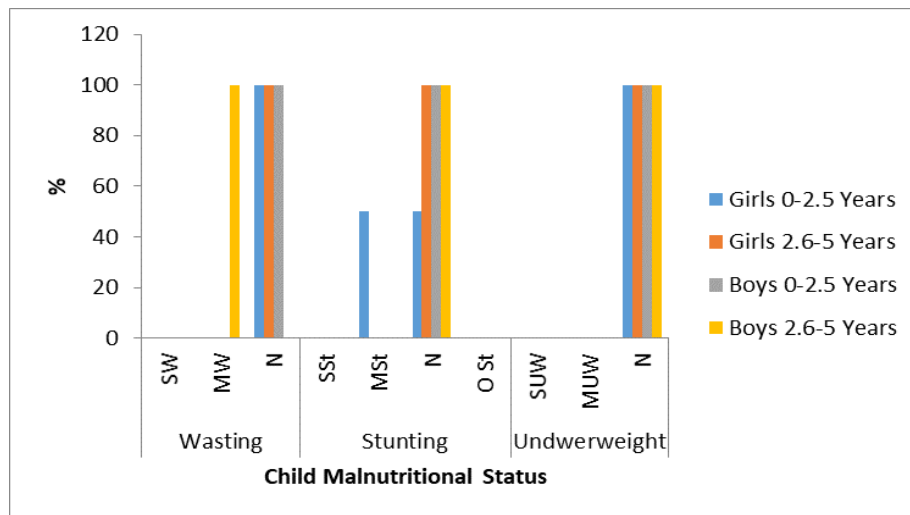
Figure 4 provides BC children’s nutritional status. It is evident that despite good number of children are normal girls in the age group of 2.6 to 5 years are wasted and stunted.



Source: Field Survey, 2022.

Figure 4: Hyderabad Slum AWCs - Under 5 years - BC Children Malnutrition Status

The respective AWCs have good number of Muslim children and it is evident that boys in the age group of 2.6 to 5 years are mildly wasted (Figure 5). Most of the children are normal in underweight nutritional category.



Source: Field Survey, 2022.

Figure 5: Hyderabad Slum AWC - Under 5 years - Muslim Children Malnutrition Status

The ICDS intervention scheme in Hyderabad, in collaboration with Manna Foods has been providing food that is sufficiently nutritional. there is a need to improve the diet and other innovative interventions to reduce wasting, stunting and underweight issues among the children. ST children have been underweight while SC and BC are either wasted or stunted. More girls are identified to be malnourished in comparison to their counterparts.

Rural Anganwadi Centres (AWCs), Telangana

The study villages aforementioned in the method section are Veerapur, Odipilavancha and Allipur of Kataram Mandal in Jayashankar Bhoopalapally district and Narva village in Mancherial district (Table 2). Each village has the distinctive social and economic characteristics.

(a) Veerapur Village

Veerapur village consists of 36.4 per cent SCs, 33.6 per cent STs and 10.9 per cent OBC and 19.1 per cent Other caste people. The AWC and government primary schools are located near the entrance of the village. The PDS shop and small fair price shops are located near the SC households' area.

The AWC is located independently in a single room. The kitchen, place for storing the food materials (eggs, milk, pulses, and rice and balamrutham packets) has one room and the place for children to study is in the porch of the AWC. The children eat on the porch and sleep in the afternoon times, inside the other room. The concerned department has provided black board for the AWC staff to teach to the children. The basic alphabet and their usage in nouns, basic mathematical numbers and regional language alphabet was well written on the walls of the walls of the porch of AWC where they study. The building has been constructed a while ago, the roof has broken patches and the floor with many cracks in between the unpolished tiles. The books for study are maintained sufficiently well.

The enrolment of children is minimal in number (around 19) and the children who turn up for the AWC physically either for studying or having food is good (around 15). Majority of the children who turn up for AWC for studying and consumption of food belong to SC and ST community. The dominant caste children neither study nor have food in the AWC as their parents are reluctant to send their children to the AWC.

“Here only these community people use this Anganwadi facility. Reddy community people will send their children to the private schools”, said the AWT.

The AWT and Anganwadi Helper (AWH) share a cordial relationship because of their social background and also have a kinship relation. The AWT belongs to the BC community but a very dominant caste and have a good political background in Telangana so does the helper. The helper has the highest educational qualification than the AWT.

It is observed that most of the children consume food blissfully. The dal and rice cooked well by the helper besides the consumption of egg is found to be good enough by children.

The AWC does not have any sanitation facility despite enough space but they use the school's toilets. The maintenance of the records of children's anthropometric measurement indicators is found to be resourceful. Also there are no complaints about the distribution of the food, viz., eggs and nutrition supplements to the children.

“Sometimes we get complaint on eggs about their quality. After me distributing the eggs to the mothers, when they boil, they say that the egg gets broken or smells bad. When I take the same issue with the distributor, he says he does not know anything regarding that quality. We feel helpless in this situation. It happens only sometimes”, said AWT regarding the quality of eggs.

(b) Allipur Village

Allipur village consists of 85 per cent of SCs. The remaining 15 per cent are from the OBC community. Allipur and Odipilavancha fall under the same Gram Panchayat (GP). Both the villages have one GP Office but independent AWCs and one government primary school. The population in this village who possess land and growing paddy and cotton is small. Some households grow vegetables in their

backyard self-consumption and also for selling to the whole village in a market. Some SC male members work as bonded labourers in the houses of dominant caste groups in the neighbouring Gummalapalli village. The AWC and government primary school are located on the left side of the village separately in different buildings.

The AWC is located independently in a two room space. The kitchen, place for storing the food materials (eggs, milk, pulses, and rice and balamrutham packets) has one room and the place for children to study, eat and sleep in the afternoon times, is in the other room. The concerned department has provided black board for the AWC staff to teach to the children. The basic alphabet and its usage in nouns, basic mathematical numbers and the regional language alphabet were written well on the walls of the AWC. The books for study are maintained sufficiently well.

The enrolment of children is minimal in number (around 16) and the children who turn up for the AWC physically either for studying or having food is good (around 12). Majority of the children who turn up for AWC for studying and consumption of food belong to the SC community. The dominant caste children neither study nor have food in the AWC as their parents are reluctant to send their children to the AWC but the AWT distributes the food to their respective homes which is the same practice as in Odipilavancha village.

The AWT and AWH share a warm relationship despite their different social backgrounds. The AWT belongs to BC community but a very dominant caste and has a good political background in Telangana and the helper belongs to SC community. Both have similar highest educational qualifications.

It is observed that most of the children consume food blissfully. The dal and rice cooked well by the helper besides the consumption of egg is found to be good enough by children.

The AWC does not have any sanitation facility despite enough space but they use the school's toilets. The maintenance of the records of children's anthropometric measurement indicators is found to be resourceful. There are no complaints about the distribution of the food, viz., eggs and nutrition supplements to the children.

It is found that only one child is undernourished whereas other children are normal according to the nutrition scale specified by the WHO in the records of the AWC.

“Only this boy is SAM (Severe Acute Malnourished), other children are normal. But this boy is showing improvement from the day he joined for every month. He may come to Normal in next few months”, said the respective AWT.

The AWT was a little hesitant to walk on the streets of SC (Madiga – sub-caste) households. We learnt that AWT worked as a village sarpanch a decade ago in the same gram panchayat and the caste hierarchy was evident in this scenario. “She does good job regarding the Anganwadi activities but while addressing the people around here, she will show caste hierarchy always and call us as ‘osey’, ‘orey’

despite the age limit. Me and my friend told her it does hurt us when she addresses us like that but she doesn't listen and calls us the same", said the SAWH about AWT.

(c) Odipilavancha Village

Odipilavancha village consists of 80 per cent of SCs, 10 per cent of OBC and Other caste people. The AWC and government primary and high school, PDS shop, fair price shops, post office and also the paddy fields are located on the left side of the village where dominant caste groups reside whereas on the right side, one cannot see any facilities except the homes of the SCs.

The AWC is located beside the gram panchayat office in the same building in a small room. The kitchen, the place for children to study, eat and sleep in the afternoon times, place for storing the food materials (eggs, milk, pulses, and rice and balamrutham packets) is being shared in the same room. The concerned department has not provided any black board for the AWC staff to teach to the children. The basic alphabet and its usage in nouns were written on the walls of the AWC. The books for study were not properly maintained.

The enrolment of children is good in number (around 20) but the children who turn up for the AWC physically either to study or have food is dismal (around 10). Majority of the children who turn up for AWC to study and eat food belongs to the SC community. The dominant caste children neither study nor have food in the AWC as their parents are reluctant to send their children to the AWC but the AWT distributes the food to their respective homes.

The coordination between the AWT and Anganwadi Helper (AWH) is found to be superficial as the AWT belongs to OBC community besides having a good political background and the latter belongs to SC community.

"As I am an SC woman, the teacher doesn't treat me properly even when I give suggestions or ask for any food material for cooking. She says that she knows everything what to do at what time. She comes with tiny packets of salt and chilli powder from her home and cooks very less food for the children and adds more water in the rice for cooking even when we received so many complaints" said the AWH.

It is observed that most of the children consume food forcefully. The distaste is very evident in their faces while consuming the food. The dal is undercooked and not grinded properly for swallowing and rice is overcooked and sometimes undercooked. The consumption of egg is found to be good enough by children.

The AWC does not have any sanitation facility despite in the same building of gram panchayat. The maintenance of the records of children's anthropometric measurement indicators is found to be insincere and there is no proper distribution of the food viz. eggs and nutrition supplements to the children and the issue regarding the quality of eggs persists in this AWC too as in the neighboring Veerapur village.

(d) Narwa Village

Narwa village is located in Jaipur Mandal of Mancherial district. This village consists of 89 per cent of SCs, 7.4 per cent of STs, 3.4 per cent of OBCs. It is

predominantly an agrarian village where most of the farmers are engaged in the production of paddy for selling and self-consumption. The study found that despite other caste and OBC people less in number, they hold a major share in agrarian lands whereas SCs and STs engage in menial jobs as daily wage labourers in the same village as well as their neighbouring village (Jaipur mandal).

A precise segregation of the population based upon their caste is observed in terms of residences. From the entrance of the village, all the SCs live on the right side the village and SC sub caste and STs live on the left side of the village. The village's only temple, the gram panchayat office is nearer to the sarpanch's residence. The AWC and government primary school are located in a single area, the PDS shop that works irregularly is located within the reach of dealers in BC colony.

The AWC is located beside the school in a single plot in a spacious three room arrangement. The kitchen, the place for children to study, eat and sleep in the afternoon, place for storing the food materials (eggs, milk, pulses, and rice and balamrutham packets) are separate. The concerned department has not provided any black board for the AWC staff to teach to the children. The basic alphabet and its usage in nouns were not written on the walls of the AWC. The books for study were not properly maintained.

The enrolment of children is good in number (around 25) but the children who turn up for the AWC physically either to study or have food is very dismal (around 10). Majority of the children who turn up for AWC to study and eat food belong to SC community. The dominant caste children neither study nor have food in the AWC as their parents are reluctant to send their children to the AWC and neither the Anganwadi Teacher (AWT) distribute the food to their respective homes.

The coordination between the AWT and Anganwadi Helper (AWH) is found to be superficial as AWT belongs to OBC community and the latter is a Muslim. "As I am a Muslim woman, the teacher sometimes shows off her hierarchy and doesn't respond cordially. She is very dearer to the people who are wealthy in this village" said the AWH.

The AWC does not have any sanitation facility despite in the same ground as the school. The maintenance of the records of children's anthropometric measurement indicators is found to be pathetic and insincere. There is no proper distribution of the food, viz., eggs and nutrition supplements to the children.

The pregnant mothers and lactating mothers have so much to complain about the AWT. It is learnt that the AWT does not do the timely distribution of eggs and food supplements to the mothers and also does not get to know about their whereabouts and how-about but their opinion was changed to positive about the Accredited Social Health Activist (ASHA) worker.

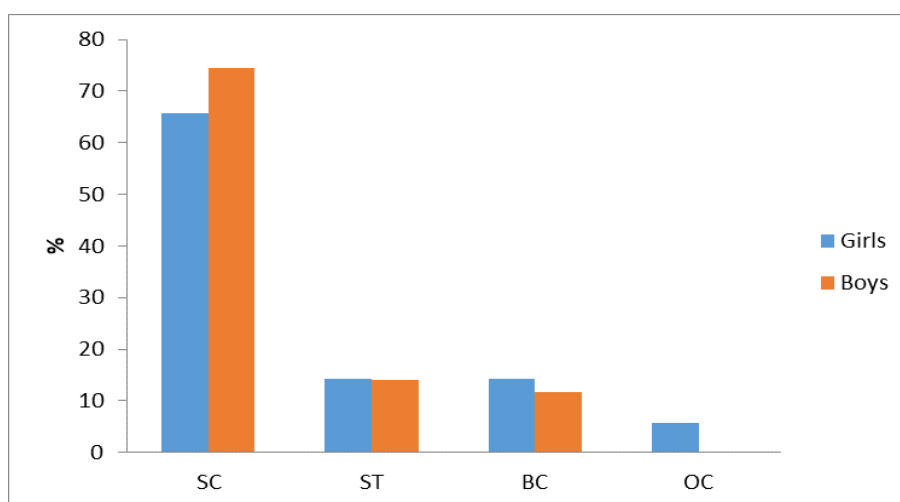
IV

OUTCOME OF THE RURAL AWC STUDY

The food provided to the children is being either cooked by the AWT or AWH. There is no catering business as such happening in Hyderabad. The cook who gets a salary of Rs. 3000/- per month has to buy all the raw materials according to her convenience from the open market in the village and cook for the children. Each cook purchases vegetables, pulses etc. except rice from the open market. Rice is supplied from the government. The menu typically includes rice and dal mostly every day in the AWCs visited. Children belonging to marginalised communities and poverty-ridden background are sent to the AWC for their food and nutrition security. The AWC is also used for the basic preliminary education of children belonging to the upper castes/classes.

The composition of the children according the gender and caste is given in Figure 6.

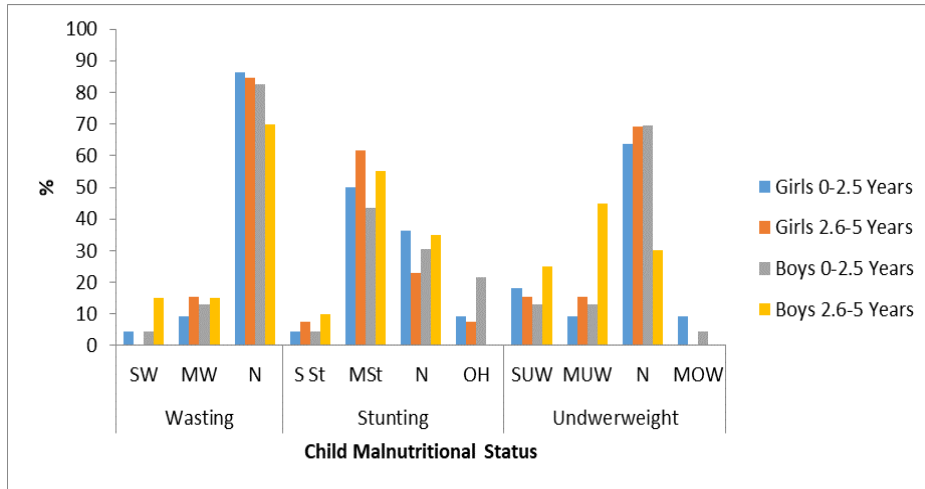
From Figure 6, it is substantiated from the method study and evident that majority of the children belonging to SC communities have been enrolled in the AWC, followed by ST and BC community children. Children belonging to other castes are sent to private schools in the neighboring villages rather than an AWC displaying their 'caste prejudice'. Only one OC (Reddy) girl has been enrolled in the Odipilavancha AWC.



Source: Field Survey, 2023.

Figure 6: Children Enrolled in Studied Villages AWC – Gender and Caste Wise

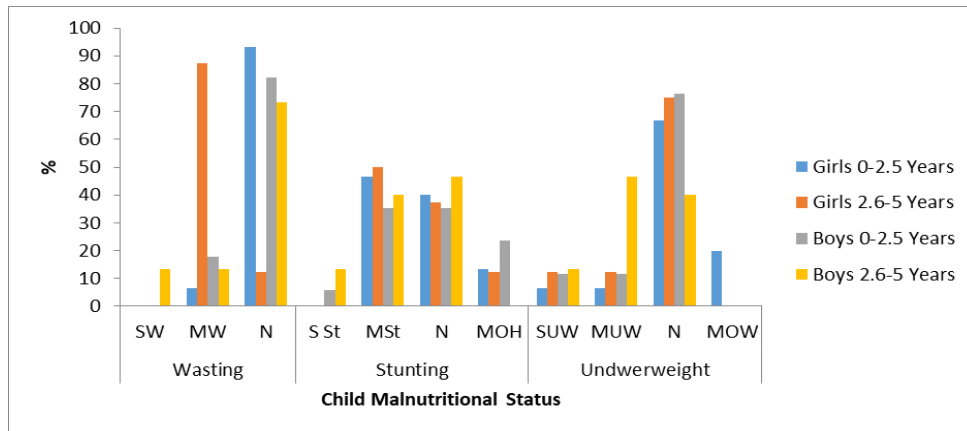
Apparently, from Figure 7, children are normal in terms of wasting and underweight category. But they are stunted according to their age. The growth has been falling apart with their nutritional level of diet.



Source: Field Survey, 2023.

Figure 7: Village AWC - Under 5 years - Children Malnutritional Status

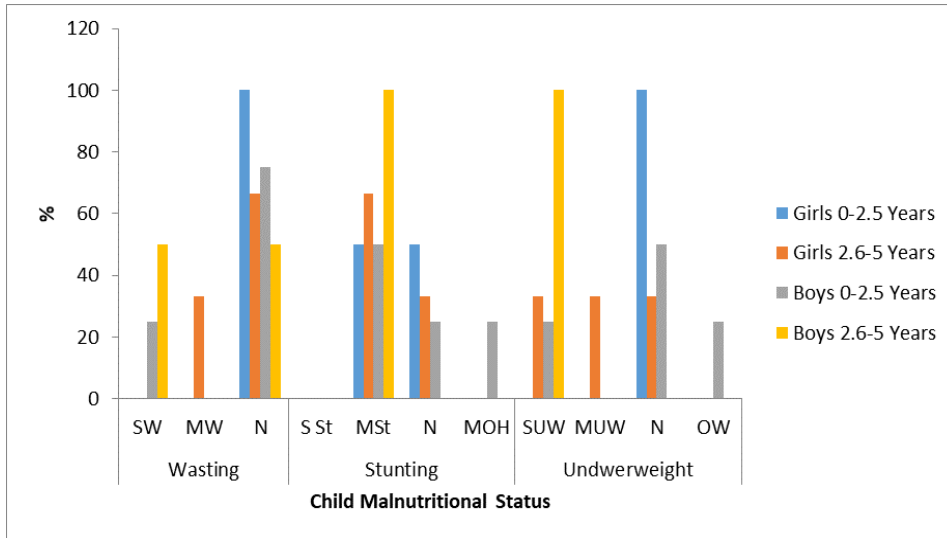
From Figure 8, it is evident that SC girls in the age group of 2.6 to 5 years are mildly wasted and certain proportions of the children are stunted.



Source: Field Survey, 2023.

Figure 8: Village AWC - Under 5 years -SC - Children Malnutritional Status

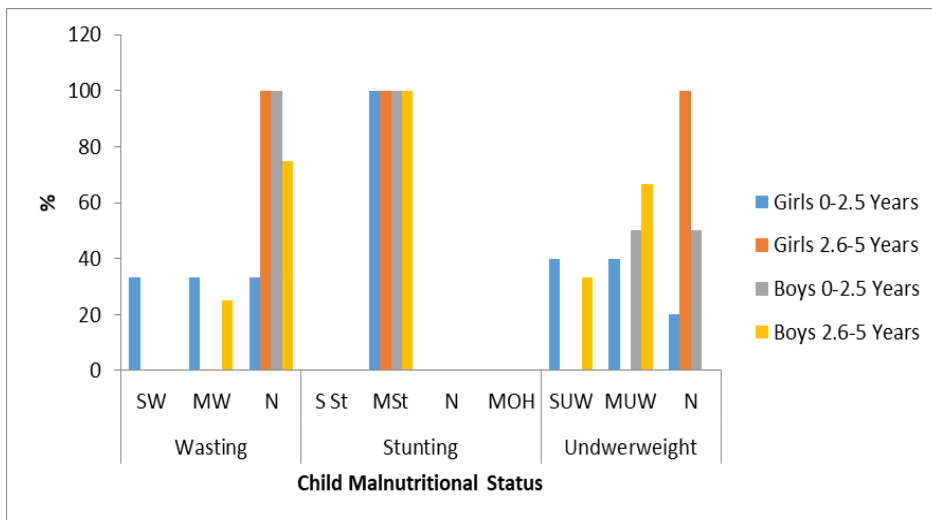
The ST children in the village are prone to stunting and underweight (Figure 9). The ST boys in the age group of 2.6 to 5 years are highly underweight and stunted. And also they are wasted.



Source: Field Survey, 2023.

Figure 9: Village AWC - Under 5 years - ST - Children Malnutritional Status

The BC children are also found to be stunting as ST children but they are good in terms of other malnourishment indicators (Figure 10).



Source: Field Survey, 2023.

Figure 10: Village AWC - Under 5 years - BC - Children Malnutritional Status

The children in rural AWCs are found to be more prone to malnourishment than urban AWCs. One of the contributing factors could be due to the burden on the cook besides her minimal wage factor.

V

A BRIEF DELIBERATION

ICDS is a key instrument in advancing the nutrition security agenda among the most vulnerable groups and operationalize this entitlement¹ in ensuring the essential nutritional provisions to pregnant women, lactating mothers, and children and is the basic health care provider at the village level in India. Children in the age group between birth to 5 years, their nutrition is vital as their health prospects are vulnerable as much as their nutrition. The study has brought out that the rural AWC are not able up their potential in the enhancement of nutrition diet to the children. The cause for less improvement as learnt in the study is dearth of resources, minimal wage, less connectivity from market and political support. This aspect was also highlighted by Dreze and Sen (2013). The AWCs in Hyderabad receive the food from a private canteen (Manna Foods) that has all the facilities and the abundance of raw materials in the preparation of food whereas in the rural areas, the female cook has to ensure the entire process of arrangement of materials as well as cooking for approximately 20 children on a paltry wage of Rs. 3,000/-). The dwindling ICDS project in rural areas can be developed by strengthening of the AWCs, enhancement of the bi-directional AWT and parent coordination, satisfactory wages and incentives, a well-timed evaluation of the project, and laying a path for a proper connectivity with markets in the vicinity

VI

CONCLUDING REMARKS

The paper has discussed the major issues and perspectives of food security in India and how the understanding of the concept of food security has evolved over time to focus on nutritional dimensions. The study identified that the poor and marginalised groups are consuming less of nutritionally rich food and hence there is a need for a nutrition focus. On utilisation, the paper focused on malnutrition indicators i.e., stunting, wasting and underweight. It showed that the prevalence of stunting, wasting, and underweight is more among the children of marginalised groups, especially among girls. It clearly indicates the vulnerability of the under-privileged groups in the rural AWCs. The centralized kitchen (Manna Foods) has been partly helping urban AWC children in their nutrition security. Since the burden of the nutrition security is solely on the cook of the rural AWC. The prices of the vegetables and other food items that cater to the needs to enhance the nutrients in the diet of the children make it difficult for the cook to keep up the pledge of the ICDS. The cooks suffer further vulnerability due to their low wages. The role of the state becomes

significant to address the nutrition insecurity through better provisioning, wages for the staff and enhanced nutrition focus through this programme.

NOTE

1. Entitlements as produced in the study of Kumar and Rai (2015); (a) one meal, free of charge, during pregnancy and 6 months after childbirth, through the local *Anganwadi* that meets basic nutritional standards; (b) for children aged 6 months to 6 years, a nutritionally appropriate meal given through the local *Anganwadi* free of charge; (c) *Anganwadis* shall have facilities for cooking meals, drinking water, and maintaining hygiene; and (d) the State Government shall, through the local *Anganwadi*, identify and provide meals, free of charge, to any child suffering from malnutrition.

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