COMMUNITY ACTION FOR NUTRITION IN TRIBAL AREAS OF MAHARASHTRA: FRAMEWORK, PROCESS AND IMPACT
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Nutrition Glossary
The Tribal Development Department of the Government of Maharashtra, in collaboration with SATHI and its Partner Organisations of Nutrition Rights Coalition, contributed to addressing malnutrition among tribal children with their extraordinary endeavours. Several ambitious, optimistic and directional discoveries were achieved to empower the tribal community and address malnutrition through community participation. On behalf of the Poshan Hakka Gat (Nutrition Rights Collation), we are grateful to the Tribal Development Department, Government of Maharashtra, for approving and financing this project on a pilot basis. It would have been impossible to carry out such an ambitious project without the government’s initiative. The Principal Secretary, Joint Secretary, Deputy Secretary, Project Officers & Assistant Project Officers from respective areas, and all the Tribal Development Department and TRTI officers.

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This process was implemented at the village level through ASHA workers. All participants hope that such a process can be carried out permanently and effectively with the participation of ASHA. We are indebted to ASHA for all the hard work she has put into this process.

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Vinod Shende and Shailesh Dikhale
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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>AAM</td>
<td>Action Against Malnutrition</td>
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<tr>
<td>AAY</td>
<td>Bharatratna Dr. APJ Abdul Kamal Amrut Aahar Yojana</td>
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<tr>
<td>ANM</td>
<td>Auxiliary Nurse Midwives</td>
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<td>ASHA</td>
<td>Accredited Social Health Activist</td>
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<td>AW</td>
<td>Anganwadi</td>
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<td>AWW</td>
<td>Anganwadi Worker</td>
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<td>BDO</td>
<td>Block Development Officer</td>
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<td>BPNI</td>
<td>Breastfeeding Promotion Network of India</td>
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<td>CAN</td>
<td>Community Action for Nutrition</td>
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<tr>
<td>CBMA-ICDS</td>
<td>Community Based Monitoring and Action related to ICDS services</td>
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<td>CDF</td>
<td>Center for Development Finance</td>
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<td>Child Development Project Officer</td>
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<td>CSO</td>
<td>Civil Society Organisation</td>
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<td>CTC</td>
<td>Child Treatment Centre</td>
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<td>EDNF</td>
<td>Energy Dense Nutritious Food</td>
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<td>GR</td>
<td>Government Resolution</td>
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<td>ICDS</td>
<td>Integrated Child Development Services Scheme</td>
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<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
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<td>JSY</td>
<td>Janani Suraksha Yojana</td>
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<td>LMIC</td>
<td>Low and Middle Income Countries</td>
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<td>MAM</td>
<td>Moderate Acute Malnutrition</td>
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<td>MDMP</td>
<td>Mid-Day Meal Program</td>
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<td>MGNREGA / NREGA</td>
<td>Mahatma Gandhi National Rural Employment Guarantee Act</td>
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<td>MIS</td>
<td>Management Information Systems</td>
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<td>MSY</td>
<td>Matritva Sahyog Yojana</td>
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<td>MUW</td>
<td>Moderate Underweight</td>
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<td>NCPCR</td>
<td>National Commission for Protection of Child Rights</td>
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<td>NGO</td>
<td>Non-Governmental Organisations</td>
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<td>NHM</td>
<td>National Health Mission</td>
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<td>NIPCCD</td>
<td>National Institute of Public Cooperation and Child Development</td>
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<td>NRC</td>
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<td>Nutrition Rights Coalition, Maharashtra</td>
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<td>NRHM</td>
<td>National Rural Health Mission</td>
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<td>NRP</td>
<td>Nutrition Rights Project</td>
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<td>PDS</td>
<td>Public Distribution System</td>
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<td>PESA</td>
<td>Panchayats (Extension to Scheduled Areas) Act</td>
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<td>PHC</td>
<td>Primary Health Centre</td>
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<td>PHRN</td>
<td>Public Health Resource Network</td>
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<td>PHRS</td>
<td>Public Health Resource Society</td>
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<td>PO</td>
<td>Project Officer</td>
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PRI: Panchayati Raj Institutions
RCH: Reproductive and Child Health
RH: Rural Hospital
SAM: Severe Acute Malnutrition
SATHI: Support for Advocacy and Training to Health Initiatives
SDG: Sustainable Development Goals
SDH: Sub-District Hospital
SPSS: Statistical Package for the Social Sciences
ST: Scheduled Tribes
SUW: Severely Underweight
TDD: Tribal Development Department
THO: Taluka Health Officer
THR: Take-Home Ration
TISS: Tata Institute of Social Sciences
TOT: Training of Trainers
TRTI: Tribal Research and Training Institutions
UN: The United Nations
UNICEF: United Nations Children’s Fund
VCDC: Village Child Development Centre
VHSNC: Village Health Sanitation & Nutrition Committee
WCD: Ministry of Women & Child Development
WHO: World Health Organization
Background and scope of project

Child malnutrition in tribal areas of Maharashtra has remained a major concern despite the implementation of various nutrition programs. Mobilising active community involvement, and ensuring improvement in household dietary practices in tribal and rural communities, historically appear to be weak links in official nutrition related initiatives.

Given this context, the pilot process of Community Based Monitoring and Action (CBMA) of nutrition services (2013-16) implemented by the Nutrition Rights Coalition (NRC), a state-wide collective of civil society organizations in Maharashtra, proved quite relevant. Drawing upon the successes of Community Based Monitoring and Planning of Health services in Maharashtra (supported by National Health Mission from 2007 onwards), CBMA was implemented in selected nine districts of Maharashtra from 2013 to 2016, aiming to make ICDS services accountable, participatory and more effective through community based monitoring, while promoting improved child nutrition practices within the household. This process yielded a range of improvements in awareness, utilisation, delivery of Anganwadi services, community engagement with nutrition and health services, and nutritional status of malnourished children.

Given this background, during a state-level consultation in Oct 2016 organized collaboratively by Tribal Development Department (TDD) - Maharashtra, UNICEF Maharashtra and NRC, the experience and encouraging results of CBMA were shared. Consensus emerged that a system for community awareness generation and community-based feedback needed to be implemented in tribal areas to improve delivery of Amrut Ahar Yojana (AAY) and ICDS services. The need for promoting convergence among frontline functionaries of key departments such as ICDS, Health, Water and Sanitation etc was emphasised by TDD officials. This entire background of positive experiences of CBMA and State’s recommendation to adopt a similar approach for improving access and delivery of nutrition services in tribal areas led to the development of the Community Action for Nutrition (CAN) project.

The CAN project was approved and supported by the Tribal Development Department of Maharashtra from September 2018 onwards, aiming to catalyse positive change in tribal communities of Maharashtra, promoting nutrition-related awareness, linkage of communities with health and nutrition services based on participation and accountability processes, and improvement of household nutrition practices, to improve nutrition and health services while reducing child malnutrition.
The CAN project was implemented over a period of two years, from September 2018 to August 2020 in selected ten tribal predominant blocks of seven districts of Maharashtra (Gadchiroli, Nandurbar, Nashik, Palghar, Pune, Raigad, Thane). In each block, 40+ habitations were selected for project intervention covering total 420 habitations and total of 21,601 children under six years of age. SATHI (which has been responsible for coordinating Community based monitoring and planning of Health services with support from National Health Mission since 2007) played the role of State Nodal Agency for ensuring implementation of the CAN project, in collaboration with experienced CSOs working in each of the selected intervention areas. Key objectives of the project included - a. Improving nutritional status of children below age of 6 years, b. Strengthening of the Anganwadi services and Amrut Aahar Yojana (AY) through community-based monitoring, c. Enhancing capacity of ASHAs, Anganwadi workers, block facilitators and coordinators and d. Improving community participation in key governance processes for improvement in nutrition services and child nutrition.

**Key approaches and processes adopted in the project**

Moving beyond many voluntary sector projects on child nutrition which are focussed on providing nutritional supplementation or parallel services to limited groups of beneficiaries, the CAN project was conceptualised and implemented as an interactive community empowerment, system-supporting intervention, which would be potentially upscalable to all tribal areas of Maharashtra.

Two major and complementary strategies in the CAN project have consisted of community based awareness generation, review of services, feedback to the system and participatory problem solving to promote improvements in utilisation and delivery of nutrition and health services; and active promotion of improved household nutrition practices along with intensive, individualised follow up of all malnourished children – both of which in complementary manner have helped to significantly improve the nutritional status of tribal children in project areas rapidly and substantially.

In brief the CAN project activities in selected tribal areas have included – consolidation of existing village level health and nutrition related committees into converged, active ‘Poshan Hakk Gat’ in every habituation; monthly awareness sessions organised in each habituation for empowering such community groups and parents to improve nutrition of their children; ensuring community ownership and oversight over frontline nutrition services by ensuring regular
presence of parents during monthly anthropometry sessions; participatory identification of service-related issues to be addressed through report cards, and regular communication of these issues to various levels of the system; and providing dialogue platforms for collaborative problem solving and ‘convergence from below’ through forums at village, block and district levels, which encouraged many positive responses from the system, leading to effective closing of gaps. The CAN process took initiative to bring nutritional improvement processes deep into the tribal community, while taking nutrition change processes into the household, by orienting and enabling the ASHA to make weekly visits to every malnourished child while counselling the parents, and linking these children more effectively with health services and the ICDS system. These complementary ‘community to system’ and ‘system to community’ approaches have ensured that thousands of tribal children in CAN areas moved out of undernutrition rapidly and in sustainable manner.

Some unique value additions of the CAN project, which have complemented existing official programmes include the following:

1. Collectives of parents and active villagers in tribal areas were made aware on nutrition issues and were mobilised to engage with the Anganwadi, enabling them to both monitor and support its services for improved nutrition of their children

2. Individual parents of all malnourished tribal children were actively engaged in improving feeding practices within their household, leading to major improvement in their child’s nutritional status

3. Capacities of ASHAs were upgraded and they were proactively involved in weekly monitoring of every malnourished child, along with providing individualised nutrition counselling to their parents, and effectively linking the child with health services when required

4. Participatory dialogue and problem-solving channels and forums were created at local level, enabling effective convergence for improved child nutrition among various departments’ frontline functionaries and community based actors, catalysing collaborations which addressed many nutrition and health service gaps

5. Generating greater awareness in tribal communities, and attention of local functionaries, regarding need for improved delivery and utilisation of Amrut Aahar Yojana (AY) supplementary meals, leading to major upgradation in provision and uptake of nutrition benefits for beneficiary tribal children and women

Range of Innovations: Due to the highly participatory and problem-solving approach of the CAN process, above and beyond the original core interventions, a large number of innovations were also sparked during the process of ground level implementation, many of which yield valuable practical learnings and generalisable tools for strengthening community nutrition programmes.

Remarkable positive impacts of the project – comparison of situation before and after intervention

The availability of wide range of programmatic data, including monthly anthropometric data for involved children, report cards on Anganwadi and AAY services, and documentation of dozens of qualitative stories of positive change enable us to understand the remarkable positive impacts of the CAN project, achieved in a short period.

Comparative impact analysis of the situation before and after initiating the intervention of CAN
project demonstrates remarkable improvements in the nutritional status of under six children, significant upgradation of Anganwadi functioning and services, as well as enhanced delivery and utilisation of Amrut Aahar Yojana (AAY) food entitlements.

**Aggregate analysis of changes in nutritional status** of 21,601 children from 10 tribal blocks covered in the CAN project, shows highly significant reduction in percentage of children with SAM (severe wasting) which was reduced from 5.2% to 2.5% i.e., **51.9% reduction was observed in proportion of children having Severe Acute Malnutrition (SAM)** during the period from June 2019 to February 2020. Likewise, the proportion of children with MAM (moderate wasting) was reduced from 14.3% to 8.8% i.e. **38.5% reduction was observed in proportion of children having Moderate Acute Malnutrition (MAM)** in the same period.

Similarly, aggregate analysis for SUW (severely underweight) children shows a reduction in proportion of SUW children in project areas during the period from June 2019 to Feb 2020. The proportion of SUW children was reduced from 14.1% to 8.9% i.e., **overall 36.9% reduction was observed in proportion of children with Severe Underweight (SUW).** These extremely positive changes were observed consistently across various project blocks in different parts of Maharashtra.

Providing reference in this context, the trends for NFHS data on child nutrition in tribal areas of Maharashtra over a recent four-year period (from 2015-16 to 2019-20) show that severe wasting (increase of 3.85%) as well as severe underweight (increase of 6.32%) have actually marginally increased among tribal children in Maharashtra overall during this recent four-year period. Compared to these overall trends for tribal children in Maharashtra, in the CAN areas aggregate analysis shows remarkable 51.9% reduction in proportion of children with SAM grade, and 36.9% reduction in proportion of children with SUW grade, which was achieved in just a 9-month period of intensive CAN project intervention (June 2019 to February 2020), before the COVID epidemic affected the final phase of CAN activities.

**Improvements in Anganwadi functioning through community feedback and local problem solving:** As part of the CAN process, various issues related to functioning of Anganwadis were documented at community level, and were raised for corrective action, which led to significant improvements in delivery of services. In project areas, regarding 156 Anganwadis the need for **adequate timing of opening and regularity of Anganwadi functioning** had been observed and communicated; **this was addressed in 125 (80.1%) of these Anganwadis,** leading directly to improved attendance of children. Out of 258 Anganwadis where anthropometry was earlier not done in presence of parents, in 94% of these Anganwadis, **anthropometry began to be performed in the presence of parents of the children,** due to the CAN intervention leading to much greater transparency as well as parents’ involvement.

**Improvements in availability of supplementary food:** Similarly, problems such as inadequate regularity in **distribution of supplementary food for children** in 3 to 6 years age group which had been observed in 136 Anganwadis, was **resolved in 96.3% instances.** Issues regarding regular **provision of Take-Home Ration (THR)** encountered in 147 villages were **addressed in 92.5% of these Anganwadis,** following the CAN process interventions.

**Improvement in delivery of health and referral services:** Positive impacts were observed in access to critical health services for malnourished children - Child
Treatment Centre (CTC) and Nutrition Rehabilitation Centre (NRC). **Referral services for malnourished children who required admission in CTC and NRC became available in 67% of the Anganwadis where these were earlier not adequately available.**

**Attendance of children for immunisation sessions conducted in the Anganwadi** was found to be inadequate in 111 Anganwadis at time of initiating the project. This gap was mostly related to children coming to the Anganwadi from remote hamlets. Following the CAN intervention, with raised awareness among parents and community members, this gap was eliminated in 108 (97.3%) of the Anganwadis where this issue had earlier been observed.

**Improvements in delivery of Bharatratna Dr. APJ Abdul Kamal Amrut Aahar Yojana (AY)**

The functionality of the Amrut Aahar Yojana (AAY) scheme of the Tribal Development Department substantially improved in the CAN areas during the project intervention period. Based on significantly improved community awareness and dialogue among stakeholders through CAN processes, various issues related to AAY functioning were resolved in majority of Anganwadis in CAN areas.

Before the CAN intervention, 35.7% of under-6 children were receiving the full amount of AAY diet items for 16 days per month as prescribed. Following CAN processes, more children started coming to the Anganwadi and consuming the AAY food items there, so the proportion of children consuming this supplementary diet nearly doubled to 65%.

Similarly, linked with greater awareness among the pregnant and lactating women who are beneficiaries of the scheme, and dialogue with Anganwadi worker as well as other concerned officials, provision of AAY related meals regularly (for 25 days per month) which was earlier observed in 57.4% Anganwadis, increased significantly to 86.9% habitations after the project intervention. The women beneficiaries started receiving the entire menu of expected food items in the meal, and compared to 61.4% women consuming AAY meals in the Anganwadi premises prior to CAN, subsequently 99.8% women beneficiaries began to consume these meals in the premises of the Anganwadi, increasing their involvement and ensuring that they were getting the complete required supplementation.

**Positive impacts illustrated through qualitative stories of change:** Besides quantitative evidence of positive impact, dozens of success stories documented from CAN field areas provide insights into the dynamics of significant changes at the community level. These narratives indicate how communities with increased awareness have begun to participate proactively in forums for dialogue at multiple levels contributing to improved access to ICDS and health services, combined with increased responsiveness of frontline staff, and strengthening collaborative action by diverse stakeholders towards eliminating malnutrition.

**Key lessons and way forward**

Despite being implemented over the short period of two years, with activities after March 2020 being constricted by the COVID epidemic, the remarkable positive impacts of the CAN process exemplify the tremendous relevance of approaches for community mobilisation, accountable systems strengthening, and promotion of convergence from below, to enable existing public programmes to achieve their full potential in tribal areas.

It should be emphasised that **the Integrated CAN intervention is remarkably cost effective.** Dividing
the entire project cost by number of children who have been covered (not even including pregnant and lactating mothers, who also benefit from the programme), the cost of CAN intervention per child per month is Rs.103, which is comparable to the cost of just one day’s dose of Energy Dense Nutritious Food (EDNF) costed at approximately Rs. 80 per day for three packets, which is currently being provided for management of child malnutrition, though being less suitable than hot cooked meals.

Keeping in view priorities of the Tribal development department to reduce malnutrition in tribal areas of the state, and the importance of ensuring effective delivery of Amrut Aahar Yojana (AAY) food entitlements, the CAN approach now needs to be seriously considered for state-wide generalisation across tribal areas of Maharashtra. Some steps in this direction may include:

- State level review of the CAN experience and project outcomes involving TDD, TRTI, Health, and WCD / ICDS department state level officials and experts to critically examine the available evidence and draw key policy lessons emerging from the CAN process. Keeping in view the adverse nutritional impacts resulting from the COVID epidemic and lockdown situations, CAN could be a valuable component of a ‘Post COVID Nutrition recovery plan’ for Maharashtra.

- TDD and TRTI officials and experts could objectively review the impacts of CAN process on utilisation and delivery of Amrut Aahar Yojana food entitlements, with a view to suitably generalising lower intensity CAN-type approach in all tribal areas of the state. Based on investment of a small additional amount for CAN, which would be a minimal fraction of the existing budget for AAY (Rs. 204 crore in 2021-22), much better community engagement and utilisation for this important programme can be ensured. Similarly, CAN type community sensitisation processes can strengthen existing efforts to make utilisation of PESA funds for social sector needs (health, nutrition, water supply and sanitation etc.) much more effective.

- Policy discussions on how the CAN process can support and complement the POSHAN Abhiyan (National Nutrition Mission), especially the Jan Andolan component in Maharashtra. Similarly involvement of ASHAs in community nutrition can be further systematised as part of National Health Mission in Maharashtra, keeping in view the CAN experience.

- CAN-like processes can be a very valuable independent source of regular information about ground level status of nutrition related services in each tribal block of the state, which could be utilised for programme corrections and responses as per the situation in each area.

The Tribal Development Department of Maharashtra has an ideal position to promote community-centred governance for social services in tribal areas, based on social accountability and ‘convergence from below’ for optimising delivery and utilisation of social sector programmes which are majorly funded by TDD, and are implemented by other line departments. In this context the CAN approach has much wider potential to support government efforts for comprehensive empowerment of tribal communities, which would be the ultimate guarantee for sustainable change.
i. The current state of malnutrition in Maharashtra and India

India’s economic growth does not reflect in terms of equitable social development. The state of Maharashtra, despite its economic progress and development, still lags on social parameters, and particularly notable among them is child malnutrition.

India bears a significant burden of child malnutrition. Malnutrition is the leading risk factor for the death of children under the age of five in India. Similarly, a recent report on Sustainable Development Goals (SDGs) by the UN mentions that nutrition-related factors contribute to about 45% of deaths in children under 5 years of age. According to the recently published Global Hunger Index report (2021), India ranked 101 among 116 countries. This report mentions that India is among the last 15 countries in 31 countries with a severe starvation crisis.

Comparison of NFHS-5 data (2019-21) with NFHS-4 data (2015-16), shows that the rate of malnutrition in the country has increased, which is a matter of great concern. It shows that severe wasting has increased from 7.5 per cent to 7.7 per cent. The situation of Maharashtra is not so different from India. According to the National Family Health Survey-5 (NFHS-5) report (2019-20), 35% of under-five children are stunted in Maharashtra. Alarmingly, wasting is reported in 25.6% under-five children, with 10.9% showing severe wasting. Even during the first six months of life, when almost all babies are breastfed, 29% of children are stunted, 31% are wasted, and 29% are underweight.
Further, the comparative analysis of state-level data from NFHS 4 and 5 reveals that the state has not been able to effectively tackle malnutrition including wasting, stunting and underweight problems among children below five years of age covered in the survey. Maharashtra NFHS 5 data shows no reduction in the prevalence of wasting among under-five children, while in underweight children, it shows a slight increase by 0.1 per cent. Stunting among under-five children, which is counted as the most difficult form of malnutrition to tackle, has increased by about 0.8 per cent between the years 2015-16 to 2019-21. In the same period, severe wasting has seen an increase of 1.5 per cent (from 9.4% to 10.9%), which is more than the national average of 7.7 per cent. The global comparison of malnutrition shows that the prevalence of child malnutrition in Maharashtra is worse than some of the world’s poorest countries such as Bangladesh (33% underweight), Afghanistan (25% underweight) or Mozambique (15%)\textsuperscript{6,7,8}.

Malnutrition reflects an imbalance of multiple factors at the macro and micro levels, such as poor feeding practices, food insecurity at the household level, repeated infections and lack of access to health care, lack of social security and maternity entitlements, inadequate or lack of childcare services for children of women working in the informal sector and lack of provision of safe drinking water and sanitation\textsuperscript{9}. Quite majorly, the level of poor nutrition security affects the poorest segment of the population in the state. Scheduled Tribes (ST) are among the most disadvantaged social groups in Maharashtra, who suffer from perpetual food insecurity\textsuperscript{10}. The tribal population in Maharashtra accounts for 9.4% of its total population\textsuperscript{11}. Within Maharashtra, undernutrition-stunting, wasting and underweight parameters are highest among the tribal children, with almost half of tribal children under five years of age being stunted\textsuperscript{12}.

In September 2016, there were reports of 600 children dying due to malnutrition in Palghar district\textsuperscript{13}. After the media broke the story of continuing malnutrition deaths in Maharashtra, it created nationwide outcry. As a result, the systems’ attention went into children malnutrition especially from Palghar district. Certain urgent measures were also declared. However, it is observed that, unfortunately, the chronic issue of malnutrition often receives such sporadic attention with not much change at the policy and system level. The situation often persists, in terms of both, the system’s functioning and the status of malnutrition.

Given this situation, it is disconcerting to note that, despite the implementation of various nutrition programmes to tackle child undernutrition in tribal areas, the scenario in Maharashtra remains unsatisfactory.

\textbf{ii. Government initiatives to address Malnutrition}

Over the years, various government initiatives have been launched in India to improve the nutritional status of children. Many of these appear to be well designed on paper; however, several studies have indicated that there are various gaps in implementation of government schemes. Some of the important nutrition-related programs include the Integrated Child Development Services (ICDS), the National Health Mission, the Janani Suraksha Yojana (JSY), the Matritva Sahyog Yojana (MSY), the Mid-Day Meal Program (MDMP), and the National Food Security Mission among others. In addition to this, at the Maharashtra level two important programs launched in the last two decades are-Maharashtra Nutrition Mission in 2005 and Bharat Ratna Dr. A.P.J. Abdul Kalam Amrut Aahar Yojana in 2015.
Integrated Child Development Services (ICDS) Scheme

The ICDS was introduced in India on October 2\textsuperscript{nd} 1975 as the world’s largest community-based programme. The scheme targets children up to the age of 6 years, pregnant and lactating mothers and women 16–44 years of age. The scheme is implemented through the village-based child centre called Anganwadi and is aimed to improve the knowledge, attitude and practice regarding health, supplementary nutrition and preschool education of the target community. In Maharashtra, according to the May 2019 progress report\textsuperscript{14} 97,379 AWs and 12,248 Mini AWs were functional. Important provisions of this program include early detection of developmental delays in children through regular growth monitoring, home visits by Auxiliary Nurse Midwives (ANMs) and Accredited Social Health Activist (ASHA) workers. Overall, although the objectives of ICDS include providing comprehensive health, preschool education
and supplementary nutrition services for children in this age group, there have been major gaps to deliver this mandate. Even after four and a half decades of implementation, the success of ICDS program in tackling maternal and childhood undernutrition remains a matter of concern.

Integrated management of Severe Acute Malnutrition

Integrated Management of Severe Acute Malnourished (SAM) children below 6 years of age was undertaken by “Integrated Child Development Scheme - (ICDS)” in coordination between Women and Child Development Department and National Rural Health Mission – NRHM (RCH) II under Public Health Department. This initiative was planned to be implemented by Village Child Development Centres (VCDC) at Anganwadi level, and ‘Child Treatment Centres’ (CTC) at Sub-district level, and at district hospital level by Nutrition Rehabilitation Centre (NRC) for up-gradation of nutritional status of the SAM/MAM children. While these initiatives are quite useful, some studies have reported that there are serious gaps in the referral system as well as in services at respective centres which depict the poor coordination between health and ICDS departments in the management of these referrals. Once discharged from the NRC after initial improvement (15% weight gain), many children fail to further improve and even relapse in the absence of effective engagement of the family and community in tackling malnutrition.

The Bharat Ratna Dr. A.P.J. Abdul Kalam Amrut Aahar Yojana (AAY)

‘Bharat Ratna Dr. APJ Abdul Kalam Amrut Aahar Yojana’, is one of the key initiatives taken by the government to reach out to tribal people and increase their access to public health and nutrition services, which are crucial for addressing immediate causes of undernutrition. It was launched in 2015 by the Tribal development department of Maharashtra. Child deaths in Palghar district prompted the government to
devise this dedicated scheme for tribal areas. It has focused on ensuring adequate nutrition during the first 1000 days of a child’s life, including its intra-uterine period, which constitutes a crucial phase for growth. The beneficiaries of the scheme include pregnant and lactating women, and under-6 children. Another important front of community-level action for reducing malnutrition is empowering mothers and caregivers of children regarding healthy nutrition practices, preferably combined with individualised counselling and follow up related to malnourished children. Considerable evidence from initiatives in various Indian states shows that such interventions can contribute to improving child nutrition and health, based on resources within the community.

Although nutrition-related initiatives by the government currently play a vital role in tackling malnutrition among children, there seem to be significant gaps in the utilisation and community engagement of these initiatives leading to sub-optimal impact on child malnutrition. Many studies\(^\text{16,17,18}\) on assessing different aspects of these initiatives, have indicated the gaps between the program and its beneficiaries. This underlines the scope for further improving the implementation of the existing programs on nutrition, with focus on strengthening strategies for community involvement and improving coordination among various stakeholders at grassroots level. This entire situation has formed the background for conceptualisation and implementation of the Community Action for Nutrition (CAN) project in selected tribal areas of Maharashtra. ●


\(^2\) SDG India index and dashboard, NITI Aayog, Government of India.2020-21
i. **Need for comprehensive and community centred strategy to reduce child malnutrition**

It is well recognised that malnutrition is a multifactorial challenge that needs to be addressed through a combination of approaches and interventions, with sustainable impacts. Along with treatment of malnourished children, it is equally important to implement malnutrition prevention measures effectively, for reducing both malnutrition and child mortality.

Further, while we note the complex and multifaceted nature of malnutrition with economic, social, cultural and political factors influencing it, it is also necessary to recognise the role of various other line departments in curbing malnutrition. It would be inappropriate to put the burden of this issue entirely on the ICDS alone. The solutions to this issue should be sought through the convergence of various related departments such as ICDS, Health, Water and Sanitation, Public Distribution System, Rural Development, Employment Generation, Panchayati Raj Institutions (PRI) etc., with emphasis on convergence at community and block levels.

Across Indian states, various approaches are being implemented to reduce malnutrition. Barring some exceptions, most interventions adopt vertical strategies focussing on dietary supplementation. Since comprehensive community-based strategies are complex to facilitate, there is a tendency to look for quick fix product based on seemingly easy
solutions such as on 'Ready to eat foods', or large-scale food fortification, meanwhile compromising on more sustainable interventions\textsuperscript{2}.

One of the most important areas of concern is that community participation often appears to be quite marginal in implementation of public programs, including health & nutrition related initiatives. Community participation is being increasingly recognised worldwide as being critical in ensuring delivery of public services in optimal manner. National Institute of Public Cooperation and Child Development (NIPCCD) program evaluation report\textsuperscript{3} states that community participation is a very weak link of the ICDS programme. Another report by Center for Development Finance (CDF)\textsuperscript{4} also provides recommendations on similar lines, stating that involving local communities in the delivery and monitoring of the scheme is widely held to be the best way to improve its performance. While there is a clear need to substantially improve the supply side of services in terms of adequate funds and improved infrastructure, quality, increased human resources etc., at the same time, the demand side must also be strengthened for ensuring active community involvement and utilisation, as well as to ensure responsiveness of services towards the community.

Given this premise, it was felt necessary to employ a comprehensive approach to tackle the important issue of child malnutrition in tribal areas of Maharashtra, including reorientation of frontline public systems with accountability towards communities; active community participation; improved community awareness about nutrition; and ensuring proper nutrition practices at household level to address malnutrition. These bottom-up, community-based interventions were considered important to complement and strengthen existing official initiatives. To ensure effective action at village and household level, systematic community level processes were considered necessary to make a concrete impact.

Another very important front of community level action for reducing malnutrition is empowering mothers and caregivers of children regarding healthy nutrition practices, preferably combined with individualised counselling and follow up related to malnourished children. Considerable evidence from initiatives in various Indian states show\textsuperscript{5,6,7} that such interventions can contribute to improving child nutrition and health, based on resources within the community. While such an approach is formally endorsed as part of official nutrition programmes, converting this policy intent into real participatory action, genuinely involving people in tribal hamlets across the state to improve the nutrition of their children has remained an unaddressed challenge, which formed the backdrop for developing the CAN project.

## ii. Some official initiatives in Maharashtra to tackle child malnutrition in tribal areas

In last few years, malnutrition has begun to receive relatively more policy attention. Here we describe couple of related developments which also contributed in shaping strategy of the CAN project.

### GABHA Samiti

A high-level committee, titled- GABHA Samiti (Core committee on child nutrition in tribal areas of Maharashtra) has been constituted under the chairmanship of Chief Secretary Maharashtra State, to monitor the Navsanjeevani Yojana in tribal districts and to reduce child mortality in tribal areas. In view of the writ petitions filed in the Hon’ble Supreme Court
in connection with child mortality in Melghat area, this committee has been formed by government in 2013. The committee meets every three months. This high level multistakeholder committee includes members such as- Secretary, Department of Medical Education and Medicines; Principal Secretary, Department of Public Health; Principal Secretary, Department of Tribal Development; Principal Secretary, Department of Women and Child Development; Principal Secretary, Employment Guarantee Scheme; Principal Secretary, Rural Development and Water Conservation Department; Director General, Rajmata Jijau Mother-Child Health and Nutrition Mission and selected civil society representatives. In addition, District Collectors and Chief Executive Officers of Zilla Parishads, from all sixteen tribal districts of the state participate through video conferencing. In the 11th meeting of GABHA Samiti dated 5th August 2017, civil society representatives presented the findings of a study conducted by Nutrition Rights Coalition. This study
revealed high levels of child malnutrition in tribal areas, with many severely malnourished children were not being adequately reported. During the meeting, the findings of the study were discussed and recommendations were made for dealing with this issue. Further, Principal secretary, TDD had suggested that Nutrition Rights Coalition take note of this study and emphasize addressing it as part of the proposed project on community action for nutrition in tribal areas.

State level consultation in collaboration with TDD and UNICEF, Maharashtra

A state-level consultation was organized collaboratively by Tribal Development Department, UNICEF Maharashtra office, and Nutrition Rights coalition-Maharashtra, on 30th September and 1st October 2016, to discuss ‘Partnerships for strengthening community interface with AAY and for improving Health, Nutrition and Development in Tribal Communities of Maharashtra’. A key session of the consultation was chaired by Shri Rajagopal Devara, Principal Secretary, Tribal Development Department, Maharashtra. Here a wide range of issues were discussed and recommendations were made, to address malnutrition, especially in tribal areas of Maharashtra. Specific experiences were shared related to the ‘Community-based monitoring and action for Nutrition’, process developed by the Nutrition Rights Coalition over last three years in pilot areas of Maharashtra, which has shown encouraging results. Given this context, consensus emerged in the consultation around the urgent need to develop such community-focused nutrition processes on a large scale in context of Maharashtra, especially in its tribal areas. A recommendation emerged that a system for community awareness generation and community-based feedback would definitely help AAY entitlements and the ICDS services to be delivered optimally.

Keeping in view this entire background, the idea emerged to implement a phased project in Tribal blocks of Maharashtra to promote community action, participatory involvement and community support mechanisms for more effective implementation of AAY and ICDS services, while promoting improved child nutrition practices at household level. The objectives envisaged were to significantly improve the awareness, involvement and practices related to nutrition in the community, while enhancing community outreach, quality and responsiveness of nutrition related schemes, focussed on AAY and ICDS. Ultimately it was expected that all these processes would contribute to majorly reducing child malnutrition and its adverse impacts in tribal areas of the state.

Before turning to the specifics of the Community action for Nutrition (CAN) process, it may also be relevant to understand background to the CAN project at the level of SATHI, Nutrition Rights Coalition including CSOs working in various tribal districts, and Maharashtra government which galvanised collaborations and set the ground for undertaking the CAN project.

iii. Backdrop to the CAN project

Community-based Monitoring and Planning of health services

Today the most extensive community accountability and participation initiative currently underway in the health sector in India is Community Based Monitoring and Planning (CBMP), which is being implemented within the framework of India’s National Health Mission (previously National Rural Health
Mission). Community based Monitoring and Planning (CBMP) of Health services has been implemented in Maharashtra as a component of the National Health Mission since 2007. This process is still ongoing and is currently being implemented in over a thousand villages across 19 districts of the state, including 11 tribal districts and 20 tribal blocks. CBMP has led to significant community mobilisation around health entitlements, with a wide range of positive impacts in terms of improving delivery and quality of health services in the intervention areas. CBMP process as well as various innovative processes undertaken as part of it, such as decentralised health planning have been well recognised at the national level.

Child nutrition services being delivered through ICDS were also covered in a low-intensity manner as part of Community monitoring of Health services during 2007 to 2012, consequently a need was felt to systematically promote community accountability and action for child nutrition through a more intensive pilot process.

**Community Based Monitoring and Action to improve child nutrition**

The Nutrition Rights Coalition (NRC), Maharashtra was formed in 2012 as a state-wide collective of civil society organizations, social activists, health professionals, academics and researchers involved in community action, advocacy and action research towards improving child nutrition in Maharashtra. Drawing upon the successes of CBMP of health services in Maharashtra and adapting this approach to a key social determinant of health in form of nutrition, the NRP initiated the process of Community Based Monitoring and Action (CBMA) related to ICDS in selected tribal areas of Maharashtra since June 2013. CBMA aimed to make ICDS services accountable, participatory and more effective through Community based monitoring, while also promoting improved child nutrition practices within the household, by appropriate counselling and nutrition education. NRC partners include civil society organisations with decades of experience of social work in various tribal districts, with strong community roots and experience of work in the health and nutrition sector.

NRC implemented a state wide pilot in Maharashtra on CBMA to improve child nutrition during 2013 to 2016, with collaboration and mandate from the State WCD Department, and having support from Narotam Sekhsaria Foundation. The process of CBMP of health services provided a backdrop for launching a pilot project on CBMA - Nutrition. This pilot has been implemented in selected areas of nine districts (most of these predominantly tribal) across the state covering 189 Anganwadis. The process was officially mandated through a GR released by W&CD Department of Maharashtra, which was initially issued for one year (June 2013 – July 2014), and based on positive experiences was subsequently renewed for another three years until June 2017. SATHI, Pune worked as officially designated State nodal agency for
CBMA related to ICDS services.

As a part of the CBMA process, community-based monitoring of ICDS services led to a range of improvements in awareness, utilisation, participation and delivery of services related to Anganwadis. The process also demonstrated significant improvement in the nutritional status of malnourished children in selected CAN areas.

This entire background of positive experiences in the pilot phase of CBMA has informed and led to the development of the Community Action for Nutrition (CAN) project with support from Tribal Development Department, Maharashtra to implement an expanded and more comprehensive range of activities to address child nutrition across ten tribal blocks of Maharashtra.

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1 UNDERSTANDING NUTRITION, MANAGING MALNUTRITION- A MODULE FOR PROGRAMME MANAGERS, Public Health Resource Society, 2016


4 Center for development finance. Integrated Child Development Services (ICDS) scheme brief.2009-10


6 Nair N et al, Effect of participatory women’s groups and counselling through home visits on children’s linear growth in rural eastern India (CARING trial): a cluster-randomised controlled trial. Lancet Glob Health 2017; 5: e1004–16


9 Marathe S, Yakkundi D, Malti T and Shukla A (Research brief on Study for assessing the impact of Community Based Monitoring and Planning process across multiple contexts in the state of Maharashtra. SATHI.2020.

The Tribal Development Department of Maharashtra had approved a multi-centric project on ‘Empowering Tribal Communities to improve nutrition related services and practices in selected tribal blocks of Maharashtra to be implemented by SATHI along with partner organisations as part of Nutrition Rights Coalition, Maharashtra. The project aimed to ensure a positive situation in tribal communities of Maharashtra, where nutrition-related awareness, linkage of communities with health and nutrition services based on participation and accountability processes, and household nutrition practices are optimally developed, to improve nutrition services and child nutrition. The Government Resolution (GR) for this project was published on 18th October 2017. Addendum to this GR was published on the 31st August, 2018. The project was implemented during the period of two years, from September 2018 to August 2020.

Broad Objectives of the CAN project:

- To strengthen capacities of villagers, ASHAs, village level committee members, Anganwadi workers, and member organisations of Nutrition Rights Coalition regarding child survival and nutrition, towards promoting community-based action on nutrition.
- To create awareness among tribal communities regarding the nutrition-related programmes focussing on Bharat Ratna Dr APJ Abdul Kalam Amrut Aahar Yojana (AAY) and entitlements of the Government of Maharashtra.
To improve implementation of AAY and activate the Village Health Sanitation & Nutrition Committee (VHSNC), Aahar Committee and Mata Committee of villages in the intervention areas to ensure this.

To promote processes for improving household care and feeding practices, for reducing and preventing child undernutrition

To facilitate community-level consultation for reviewing nutrition-related services, linked with providing community feedback on nutrition-related programmes

To improve community interface with key governance processes in Adivasi areas, which are relevant for improving nutrition

Key focus areas of the CAN project

1. Improving nutritional status of children below age of 6 years- focussing on improving nutrition practices at household level, individualised counselling for malnourished children, follow up of malnourished children by ASHAs, Anganwadi workers and growth monitoring through anthropometric measurements.

2. Strengthening of the Anganwadi services and AAY through community-based monitoring- Focussing on strengthening community awareness regarding nutrition programs, improving availability and delivery of various Anganwadi services as well as of AAY, including improving the implementation of supplementary feeding for 3 to 6-year-old children by Anganwadi, coverage of beneficiaries, quality, distribution and regular food under AAY for pregnant and lactating women and under-6 children, improvement in community level referral practices related to sick malnourished children, and improvement in frequency and quality of home visits by ASHA / Gav Karyakarti, having linkages to the Anganwadi.

3. Enhancing capacity of ASHAs, Anganwadi workers, block facilitators and coordinators- Focussing on enhancing capacity of frontline workers primarily on nutrition practices and growth monitoring of children and awareness among active community members (VHSNC members, Aahar Samiti members) and PRI representatives regarding nutrition services, entitlements and practices, etc.

4. Improving community participation in key governance processes for improvement in nutrition services and child nutrition- focussing on gathering community feedback on nutrition services, increasing responsiveness of Anganwadi
workers related to community feedback, presenting systemic and cross-cutting issues related to nutrition services arising from community experiences in official committees and bodies and addressing those issues by block and district level bodies such as Block, District monitoring and planning committees.

i. **Framework for implementation of CAN project**

To achieve the objectives mentioned above, the process was designed to focus on the nutrition of below the age of 6 years, nutrition practices at household level, individualised counselling for malnourished children, follow up of malnourished children by ASHAs / Gav Karyakarti working in coordination with Anganwadi workers, and strengthening of the Anganwadi and AAY through community-based monitoring. SATHI played the key role of State Nodal Agency for ensuring implementation of the CAN project in collaboration with respective CSOs working in selected ten tribal predominant blocks of 7 districts of Maharashtra.

An innovative and comprehensive approach was adopted for implementation of the CAN process for improving child nutrition. Improved coordination involving the relevant frontline functionaries and officials related to the Public Health Department, ICDS department as well as Tribal Development Department from the village level to the district level (convergence from below) was also actively encouraged through collaborative initiatives.

As per this design, the steps for the implementation of the CAN process are as follow

**Fig. steps for the implementation of the CAN process**

- **Village Level**
  - VHSNC, Mata Samiti, Aahar Samiti (Nutrition Rights Group)
  - Monitoring of the nutrition services and promoting community action for nutrition

- **Beat Level**
  - Few members of VHSNCs, Mata Samiti and Aahar Samiti
  - Dialogue with AW Supervisor

- **Block Level**
  - Block level Committee and officials of ICDS, Heath and TDD
  - Discussion and problem solving at block level (once in every 3 months) and Mass dialogue (Jan Samvad)

- **District Level**
  - Committee members and district level officials of ICDS, Health and TDD
  - Discussions and problem solving at District level (once in every 3 months)

**At state level**

Officials of TDD, WCD, Public health and civil society organizations – Dialogue for solution on issues emerged through CAN process (Biannually)
The diagram below depicts the operational structure of the project

**Fig. Operational structure of the project**

**Tribal Development Department - Tribal Research and Training Insitute**

State Nodal Agency - SATHI

Amhi Amchya Aarogya Sathi (gadchirol - Armori & Kurkheda)
Janarth (Nandurbar-Dhadgaon & Shahada)
Vachan (Nashik-Tryambakeshwar)
Disha Kendra (Raigad - Karjat)
Van Niketan (Thane - Shahapur)
Kamgar va Majur Sangh (Kashtakari Sanghatana) Palghar (Jawhar & Mokhada)
Rachana Society for Social Reconstruction (Pune - Junnar)

Block Coordinator
Field Facilitator
ASHA / Gav Karykarti

Block Coordinator
Field Facilitator
ASHA / Gav Karykarti

Block Coordinator
Field Facilitator
ASHA / Gav Karykarti

Block Coordinator
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Field Facilitator
ASHA / Gav Karykarti

Block Coordinator
Field Facilitator
ASHA / Gav Karykarti

Total Human resources involved in CAN process – 10 Block Coordinators, 42 Field Facilitators, 420 ASHA/Gav Karykartis, team of eight programme staff at State level (SATHI).

**ii. Preparatory processes**

Preparatory phase of the CAN project focussed on brainstorming and refining the strategy, methodology, structure and overall implementation model of the project. Towards this, consultation with experts as well as officials were conducted. For capacity building of various stakeholders in the project such as field facilitators, district coordinators, ASHAs, Anganwadi workers etc, series of orientation workshops were organised at district, block and village levels. Various tools and instruments for assessing the improvements concerning focus areas of the project and ensuring implementation of the project were developed prior to the project’s field implementation. In addition, pictorial awareness material was also developed in vernacular language. Following preparatory processes were carried in the initial period of the project.
National consultation on critical policy issues and community-based alternatives to tackle malnutrition in Maharashtra

Prior to the implementing of Community action for nutrition process, SATHI organised a national consultation on 17th August 2017 with the participation of various state and national level experts to receive diverse, relevant technical inputs on the operational framework. Nutrition experts such as Dr. Arun Gupta, Central coordinator, Breastfeeding Promotion Network of India (BPNI); Dr. Vandana Prasad, National Convenor, Public Health Resource Network (PHRN), Dr. Prasanta Tripathy, Director - Ekjut, Dr. Ashish Satav, President, MAHAN Trust, Melghat, Dr. Subhlaxmi Iyer, (then consultant Health and Nutrition, TDD, Maharashtra) as well as Mr. L.G. Dhoke, Deputy Secretary (TDD), Shri. Pandharkame (TDD) and other officials from Tribal Development Department and Health Department had participated in this consultation. They shared insights from experiences of their respective organizations which have worked substantially in the field of nutrition. The proposed structure and strategy of the project was discussed in detail and inputs were sought on this.

Consultation on brainstorming for refining strategies to tackle tribal malnutrition

SATHI had organised a consultation on brainstorming for refining strategies to tackle the issue of malnutrition in tribal areas Maharashtra. National level experts such as Dr. Purnima Menon, Senior Research Fellow, IFPRI, Poverty, Health and Nutrition Division, New Delhi, Mr. Ganapathy Murugan, Head of Organisation PHRN, New Delhi, Dr. Mohan Deshpande, Senior Consultant to WCD, Dr. Manisha Bonde, Expert on Tribal nutrition had participated in this consultation. During this consultation Dr. Purnima Menon provided an overview of community-based interventions on nutrition and key insights from review of literature from across countries (LMICs) and India on efficacy of specific community-based interventions/strategies. Dr. Manisha Bonde talked about key issues related to household nutrition practices in tribal areas of Maharashtra. Mr. Ganapathy Murugan talked about key messages for improving nutrition and shared insights from experiences in various Indian States.

State level multi stakeholder orientation workshop

This workshop was organized on 19th December 2018. Ms. Manisha Verma, Principal Secretary, Tribal Development Department, was chairperson of workshop. This workshop was organized to promote better convergence of all the concerned departments (Tribal Development Department, Woman and Child Development Department and Public Health Department) and organizations and orient them about the CAN process and ensure their active support.

State level orientation and planning workshop

A state level orientation and planning workshop for CAN partner organizations was organized on 8th and 9th October 2018. Dr. Shubalakshmi Iyer of TRTI-TDD
guided the workshop. The workshop was attended by twenty-seven participants from seven project implementing organisations including a representative from TISS and SATHI. During this workshop SATHI team gave an orientation of the CAN project to the partner organizations focussing on the CAN process and its expected outcomes. Possible challenges partners may face while implementation of this project was also discussed during the workshop.

**Capacity building and awareness of various stakeholders regarding CAN process**

Followed by the above-mentioned state level workshops, capacity building of partner organisation was conducted to understand ground level situation of nutritional status of under six children and status of nutrition services. Profile preparation activity was also organized in the intervention areas. Orientation and formation of Poshan Hakk Gat consisting of local level committee members regarding CAN process. These activities were conducted to ensure shared vision and understanding regarding emerging Community action for nutrition approach. A district level multi-stakeholder workshop was organized in all the 7 districts included in the process. The Collector, Project Officer of Tribal Development Department, Chief Executive Officer, Tahsildar, Block Development Officer, District Health Officer, Superintendent of the Rural Hospital, Taluka Health Officer, Child Development Project Officer and Medical officers of Primary Health Centers of the concerning districts were present at these workshops. Active participation from Gram Sevak, Sarpanch, Anganwadi supervisors, Anganwadi workers, ASHA workers and facilitators of the local partner organizations from the concerning districts was also observed.

**Regional Training of Trainers**

Regional Training of Trainers (TOT) was organised in two batches at Pune and Nashik from 23rd to 27th January, 2019 and 1st to 5th February, 2019. The TOT was organized for the block coordinators and field facilitators of all the 10 blocks. The TOT at Pune was attended by the block coordinators and field facilitators from Junnar, Shahapur, Karjat, Shahada and Dhadgaon blocks, whereas the TOT at Nashik was attended by the block coordinators and field facilitators of Tryambakeshwar, Jawhar, Mokhada, Armori and Kurkheda blocks.

These TOTs covered topics such as nutrition, malnutrition, child growth and development, components of a balanced diet, high-risk pregnancies, nutrition services, topics of village meetings, etc. The participants were oriented about anthropometric techniques followed by hands-on training regarding
accurate anthropometric measurements. During the training, a visit to an Anganwadi was also organised for the participants to understand the working of an Anganwadi as well as to practice anthropometry. The tools for the data collection, the protocols and guidelines of the follow-ups and data registers were also explained to the participants during this TOT.

**Orientation workshops for field facilitators, block coordinators, ASHA/Gav Karyakartis and Anganwadi workers**

Block-level orientation workshops with field facilitators and block coordinators regarding the CAN process were conducted from September 2018 onwards. In the workshop need for the project and its significance was discussed with Karyakartas. They were then briefed about the implementation steps in the process and the expected outcomes. Taluka Health Officer (THOs) had also attended the workshops in many places. During this workshop the field facilitators were assigned the villages for which they will be responsible. The field facilitators and block coordinators were also explained their responsibilities and the village level data that has to be collected. Likewise, such block level training workshops for ASHA/Gav Karyakartis and Anganwadi workers were also conducted in all the 10 blocks. Child Development Project Officer and Supervisors from ICDS department had also attended these workshops.

**Orientation by nutrition experts for grassroots workers**

Dr. Vandana Prasad and Ms. Saman Zaman of Public Health Resource Network conducted two-day orientation on 4th and 6th November 2019. During this consultation, Dr. Prasad and Ms. Zaman conducted sessions on community dialogue, personalised counselling of caretakers of malnourished children, and spreading nutrition awareness by using different resources, components of a balanced diet, calibration of anthropometric instruments, etc. The sessions were carried out using different resources, group discussions and role-plays.

**Development of community awareness material**

Key component of the CAN project included community awareness regarding nutrition-related services and entitlements for various target groups. Variety of resource material was developed during preparatory phase of the project and used in training trainers. The training module for the ASHA workers was used during all the block level trainings. The resource material included pictorial manuals, flow charts, guidelines, protocols covering nutrition, malnutrition, balanced diet, immunisation, child health, sanitation, nutrition services and Anthropometry. Some of the key resource material developed during the project includes the following-

- Manual for ASHA worker and field level staff

- Flip Book was published for ASHA and Field level staff to enable them to conduct interactive nutrition education sessions in the community.

- Guidelines for conducting Anthropometry in Marathi, growth chart for boys and girls

- Newsletter titled, Poshan Kuposhanache ‘SAKAS’ Samvad Patra - Regularly published newsletter regarding CAN process.

**Tools for monitoring Anganwadi services and Amrut Aahar Yojana**

Data related to key components of nutrition services at community level was collected on a six-monthly basis through field facilitator with active involvement of community members. A questionnaire was developed to understand the current situation of the Anganwadi Scheme and AAY from the people and Anganwadi Worker, including the information regarding the services from the Anganwadi, the implementation of the AAY, the problems faced by the people and Anganwadi workers. The nutrition services report card was also prepared using this questionnaire and displayed at the Anganwadi. This step was considered important to ensure that the people of the village become aware of the current status of nutrition services and receive their active support in improving these services. This data was primarily used at the local level, and shared with Anganwadi Worker to resolve issues emerging at local level. An appropriate mobile application (CAN App) was developed and used to collate and help analyse such community feedback on ICDS and AAY services. Major unresolved issues or persistent issues emerging from monthly meetings and six-monthly report cards were communicated to block-level for resolution.

**Data App for growth monitoring of children**

The MIS software (App) was designed to enter anthropometry readings for children under age six from the Anganwadi every month and generate nutritional status reports whenever required. Since most of the tribal areas suffered by poor connectivity, the App was designed to be used in offline mode as well. Tablets were provided to all field workers during the project. Field workers entered the data into the app offline and uploaded the data to the server using the internet. They were provided with detailed training as well as supported with handholding for using the app. Data analysis was done mainly with MS Excel, the statistical package SPSS (Version 20), and the “igrowup” macro provided by WHO Anthro.

**Baseline Survey for the CAN project**

A baseline survey was conducted by an external agency- Tata Institute of Social Sciences (TISS), Mumbai. The survey was led by Dr. Bal Rakshase and Dr. Priyanka Dixit from TISS. The objective of the survey was to assess the nutritional status of children in the age group 6-59 months and to assess the knowledge,
attitude and practices among Mothers including mothers of young children (6-59 months), pregnant women and lactating mothers regarding nutrition related practices and services. TISS selected the Dhadgaon and Shahada blocks of Nandurbar district, and Armori and Kurkeda blocks of Gadchiroli district for the baseline survey. TISS conducted a baseline survey during November 2018 - February 2019, and the final report was submitted with considerable delay on 16th December, 2019.

iii. Coverage of CAN project

This process was implemented in selected ten tribal predominant blocks of 7 districts of Maharashtra. SATHI is a State Nodal Agency for implementation of CAN process in all selected blocks of Maharashtra at the state level. In each block, 40 habitations were selected for project intervention, with 20 additional habitations in Tryambakeshwar block. (total 420 habitations). Nodal civil society organisations for the CAN project are as follows:

- Kurkheda and Armori block of Gadchiroli - Amhi Amchya Aarogyasathi
- Shahada and Dhadgaon block of Nandurbar - Janarth Adivasi Vikas Sanstha
- Jawhar and Mokhada block of Palghar - Kamgar va Majur Sangh (Kashtakari Sanghatna)
- Shahapur block of Thane - Van Niketan
- Tryambakeshwar block of Nashik - VACHAN
- Karjat block of Raigad - Disha Kendra
- Junnar block of Pune district - Rachana Society for Social Reconstruction
- SATHI, Pune took responsibility as State nodal organisation for the entire project.

iv. Overview of project implementation components

- The Community Action for Nutrition project was designed as an interactive community and public systems focussed intervention, rather than as a typical NGO based delivery project. Unlike many voluntary sector projects on child nutrition which are focussed on providing nutritional supplementation and related inputs to limited groups of beneficiaries, the CAN project was conceptualised as a system-supporting, community empowerment intervention which would be potentially upscalable to all tribal areas of Maharashtra. Two major and complementary strategies in the CAN project have consisted of community based awareness generation, review, feedback and problem solving to promote improvements in utilisation and delivery of nutrition and health services; and active promotion of improved household nutrition practices along with individualised follow up of malnourished children – both of which in complementary manner have helped to significantly improve the nutritional status of such children.
rapidly and in sustainable manner. (See diagram on conceptual basis for the project)

Keeping this approach in view, we provide here an overview of major project components which were designed and implemented as part of the planned project period during September 2018 to August 2020. A list of detailed project activity reports which have been submitted regarding the CAN project is provided at end of this chapter.

The next chapter (Chapter 4) provides further experience-based analysis of the notable and unique value additions which have emerged during the process of CAN implementation, as a result of creative and evolving implementation of these activities.

1. Strengthening community awareness regarding nutrition related services
   Dissemination of information on nutrition services and entitlements to community members—While initiating the project, information about key nutrition related services, like Anganwadi services as well as
the services available under AAY, was provided to beneficiaries and community members in all villages/habitations in the field area. Intensive campaigns based on youth volunteers were conducted to reach each habitation, providing basic information in an accessible and appealing manner. Creative material like posters, pictorial material were also utilised to spread awareness. Hamlet level meetings were organised through facilitators and youth volunteers in the field area to create awareness about key nutrition related services, especially with pregnant, lactating women and parents of under-six children.

2. Facilitating community-based consultations to review nutrition related services, linked with providing regular community feedback to officials regarding nutrition related programmes

For optimal delivery of various health and nutrition related entitlements and services, it is important that service users in various communities are involved in providing regular feedback to the system, enabling closing of gaps and addressing community suggestions wherever relevant. Aligned with this strategy, following activities were conducted in all project habitations:

1. Regular habitation level discussions to review Health and Nutrition services - Based on the awareness created regarding health, Anganwadi services and AAY, at village/hamlet level active members of the ‘Village Health, Nutrition and Sanitation Committee’, ‘Aahar samiti’ and ‘Mata samiti’ had joint meetings on monthly basis to discuss issues related to current availability of Health and Nutrition services, and how to improve nutrition of children in the community. The process of hamlet level discussions was facilitated by ‘ASHA’ worker and field facilitator. During each monthly meeting, nutrition services were assessed through discussion with villagers, which reflected the current situation regarding implementation of nutrition services in the hamlet. Often these meetings were combined with visit to the Anganwadi so that parents could oversee growth monitoring and feeding of children etc.

2. Block level review meetings on nutrition services - In all blocks in Maharashtra where CBMP-Health is being implemented with support from National Health Mission, the Block Monitoring and Planning Committee was already in place, which includes the CDPO, Taluka Health Officer, Block level Panchayat members and Taluka Extension Officer. The same committee was expanded to include the Anganwadi Supervisor and Tribal Development Department - Project Officer (PO) and other relevant representatives of the Tribal Development Department. This expanded Block committee used to meet every three months to take stock of compiled information/report cards from the block and key issues emerging during the last three months, with intent to resolve issues that have not been resolved at the local level. Block-level mass dialogue (Jan samvad) were organised on annual basis for
popular participation and dialogue involving community members, local PRI members, ICDS and health officials to ensure resolution of outstanding issues.

3. Joint review by District monitoring committee (NHM) and District Implementation Committee related to Amrut Aahar Yojana – As part of the process of Community based monitoring of health services, ‘District Monitoring and Planning committee’ was already in place in all CBMP districts, among which the CAN process was implemented in 7 districts. The Tribal Development department has mandated ‘District Implementation committees’ to monitor AAY in all tribal districts. Joint meetings of these two committees were planned to be held once in 3 months, where issues emerging from various blocks, including issues not resolved at lower levels regarding implementation of ICDS, health services and AAY, were discussed and appropriate action/decisions were taken.

The CAN project teams in each block organised demonstrations and provided information in monthly village/hamlet level meetings involving members of VHSNCs, Aahar samiti and Mothers committee about desirable child feeding practices including timely breastfeeding, appropriate supplementary nutrition after 6 months of age, and feeding of sick children etc.

The CAN team drew upon innovations developed in some other states, such as Ekjut (primarily working in Jharkhand) and AAM (Action Against Malnutrition programme piloted by Public Health Resource Network in Odisha, Jharkhand and Chhattisgarh). Based on these proven models, the ‘cycle of awareness’ programme was developed, through monthly meeting-cum-demonstrations. Series of nutrition related messages were discussed once every month with community groups through display of flipcharts,

3. Promotion of improved household nutrition practices and individualised counselling for caregivers of malnourished children

3a. Collective awareness generation for improved nutrition practices
practical demonstrations, and locally contextualized discussions. Thus, a chain of a dozen key Health and Nutrition related messages were widely disseminated to key beneficiaries, especially mothers of young children, and pregnant and lactating mothers. It is evident that such processes can lead to significant improvements in child nutrition practices.

3b. **Individualized counselling of mothers/caregivers of malnourished children, promoting Improved feeding**

This component of the project involved a more intensive individual-level follow up, done through home visits concerning all children having Severe Acute Malnutrition (SAM), Moderate Acute Malnutrition (MAM), and Severe Underweight (SUW). Individualised counselling was done with the mothers/caregivers of each malnourished child regarding additional /special food to be given to these children, frequency and quantity of diet, as well as methods to enhance the nutritional quality of the food available at home.

In case of any ill malnourished child, counselling and guidance were provided, so that the child would be given care at the nearest PHC / CTC as necessary, at the earliest.

The task of regular follow-up of these malnourished children through home visits was assigned to the ASHA, mentored by Field facilitators. Trainings were given to ASHA/Gav Karyakarti and Field Facilitator for their capacity building, to equip them for this demanding task. ASHAs were provided specific honorarium to support their performance of these tasks. ASHAs were involved in conducting individual follow-up with families of all the malnourished children in their hamlet – making weekly home visit to the child’s house for monitoring of the child’s condition, providing detailed diet counselling, and linking the child with Anganwadi and health services as required.

The Anganwadi Workers were also involved in supporting this work, linking such children with the VCDC and ensuring their effective follow up in the Anganwadi. The block facilitator of the nodal CSO used to visit and mentor various activities including the ASHAs work, visiting each village at least on monthly basis.

4. **Improving community interface with frontline officials and forums in Adivasi areas, which are relevant for improving nutrition**

Nav Sanjivani Yojana Committees have been established at the block as well as at the district level, in all tribal predominant districts of Maharashtra. Officials of the Tribal development department, Health, ICDS, Food Security, Forest and other line departments are members of these committees. Nodal civil society representatives responsible for CAN project implementation would present even issues beyond ICDS related to nutritional-sensitive services (e.g. PDS, NREGA) at the monthly meetings of the Nav Sanjivani Committee at both block and district levels. Project Officers (POs) from TDD in many areas played an important role in facilitating such dialogue. Such efforts led to effective communication
of community level experiences to various concerned officials even beyond ICDS and Health departments, followed by constructive problem solving and closing of gaps, resulting in improved delivery and access to nutrition sensitive services at community level.

v. Project monitoring

Monitoring of activities related to the project was important for measuring progress, detecting problems, re-strategizing and thereby optimising performance. Monitoring of various processes in the project included the following:

- Monthly activity reports from block coordinators- These reports were helpful in monitoring the execution of various activities towards achieving project results.

- Analysis of report cards regarding ICDS services- Ensuring timely submission of these report cards from Field level facilitators to state level team, helped monitor the key process of data collection effectively.

- State level review and planning meetings- Three-monthly review and planning meetings were conducted with nodal CSOs involved in implementation of project, where key aspects of progress were reviewed for each project block.

- Regular field visits by state level team members- monthly field visits were made in all intervention areas by state level team members.

State-level monitoring of CAN project by Tribal Development Department and TRTI officials

The Community action for nutrition (CAN) project was reviewed periodically at the state level by the Tribal Development Department and Tribal Research and Training Institute officials. From the beginning of the project, officials from the TRTI Quest centre Mumbai, Dr. Safwan Patel and Ms. Fatima Mulla were reviewing the activities of the CAN project regularly during review meetings. Consultant Health and Nutrition Dr. Shubalakshmi Iyer associated with Quest office, TRTI reviewed and provided guidance for preparation of the CAN project’s tools and protocols. Subsequently Ms. Preeti Pawar from TRTI took the charge for supervision of the CAN project. Mr. Hansdhwaj Sonavane, Deputy Director TRTI had also been involved in reviewing the CAN project activities from time to time.

Field visits were also made by officials to directly observe CAN activities on the ground. On January 22, 2020, Deputy Director Ms. Nandini Awade visited the CAN field area in Junnar block and reviewed the activities of the CAN project. Ms. Preeti Pawar visited the CAN project at Jawahar and Mokhada block on 9th and 10th January 2020 and reviewed the project activities.

The activity reports of the CAN project were submitted to the Tribal development department regularly throughout the project period. The TRTI-Quest centre representatives had organized nine review and planning meetings regarding the CAN project during the implementation period.
SATHI had submitted periodic activity reports to TRTI and TDD as listed below:

- Brief activity update for the first month i.e. September 2018 was submitted to the Secretary TDD on 25th Sept. 2018.
- Activity update for the period from Sept. to November 2018 was submitted to TRTI on 12 Nov. 2018.
- Activity update for the period from September to December 2018 was submitted to the Secretary TDD on 13th Dec. 2018.
- Activity update for the period from September to December 2018 was submitted to TRTI on 27th Dec. 2018.
- State level key issues that emerged through CAN process was submitted to Secretary TDD on 16th December 2019.
- Activity update for the period from September to December 2018, CAN project list of selected village, timeline chart, was submitted to TRTI on 8th January 2019.
- State level issues emerged through CAN project was submitted to TRTI on 28th May 2019.
- Activity update was presented during review meeting organized by Ms. Nandini Awade, Deputy Director of TRTI on 2nd July 2019.
- Data related to children and Amrut Aahar Yojana was submitted to TDD on 17th Sept 2019 and to TRTI on 3rd October 2019.
- State level issues emerged through CAN project was submitted to the Secretary TDD on 16th Dec. 2019.
- Activity update for the period from September 2018 to April 2020 was submitted to TRTI on 5th May 2020.
- Activity update for the period from September 2018 to April 2020 was submitted to TRTI 28th May 2020.
- Presentation regarding CAN project was conducted in front of Commissioner TRTI on 17th July 2020.
- CAN positive impact note 'Review and observations regarding CAN process', by Quest representative was submitted to TRTI on 29th July 2020.
- Activity report for the period from September 18 to November 2020 was submitted to the Secretary TDD during the review meeting held on 18th Dec. 2020.
- Activity update for the period from September 18 to November 2020 was submitted to TRTI on 26th February 2021.
- Activity report for the period from September 2018 to November 2020 was submitted to TRTI on 30th July 2021 during the review meeting held at TRTI.
Chapter 4
Value additions and elaborated strategies emerging during the CAN project

Under Integrated Child Development Services (ICDS), the Anganwadi provides supplementary nutrition, vaccination, regular health check-ups, nutrition and health education, referral, and pre-school education to children below six years of age, adolescent girls, pregnant women and lactating mothers. The project CAN collaborated with the existing nutrition programme to strengthen health & nutrition services (ICDS & Amrut Aahar Yojana) and achieve optimal children’s growth. The intervention aimed to achieve this by focusing on five key strategies to maintain the nutritional status of children receiving Anganwadi services.

i. Improved household nutrition practices

ii. Individualised follow-up of children, parents counselling, and actively engaging parents to tackle malnutrition

iii. Increased engagement between community and Anganwadi

iv. Engaged ASHA workers to improve the nutritional status of malnourished children

v. Improved inter-departmental coordination at the grass-root and at higher levels
i. **Improved household nutrition practices**

Under the Supplementary Nutrition Programme of ICDS, the Anganwadi provides supplementary nutrition to 6 months to 6 years old children, pregnant women, and lactating mothers. Similarly, Bharat Ratna Dr. A.P.J. Abdul Kalam Amrut Aahar Yojana (AAY) provides a complete meal to pregnant and lactating mothers every day and provides eggs or bananas for up to 4 days a week to children between 6 months to 6 years.

Children between one to three years should get at least 1060 kcal, 16.7 gms of protein and 27 gms of fat per day, while children between four and six years should get at least 1350 kcal, 20.1 gms of protein and 25 gms of fat per day. The Anganwadi meets only a part of this nutritional requirement as it provides approximately 500 kcal and 15 to 20 grams of protein for children in the age group of 6 months to 72 months. The remainder, essential for the child’s growth, is expected to be fulfilled at home. If the nutritional requirements remain unmet, it adversely affects the child’s growth. For example, lack of nutrition affects the child’s immune system, resulting in frequent illnesses impacting food consumption. As a consequence, it leads to the vicious cycle of malnutrition and associated illnesses.

Against this background, the CAN project focused on improving the household nutrition practices by regularly visiting children under the age of six to provide nutrition and health guidance to mothers/caregivers. During these visits, the ASHA worker and field facilitator assessed the ability of the beneficiaries to gain access to good food and nutrition in several ways.

a. **Assessing household situation on food availability**

The ASHA worker and the field facilitator conducted home visits as per the project mandate during the project period. During the home visits, they carried out several activities to understand different factors that affect food availability and consumption. Some of these activities are checking decrease in food availability and the reason for such decrease, ASHA worker and the field facilitator attempted to understand the food type reduced from meals (e.g. cereals, pulses, vegetables, oil, milk). ASHA worker and the field facilitator listed family members’ illness, migration patterns, financial losses faced, and loans accrued. Additionally, loss of cattle, utensils, equipment, or other items sold, mortgaged property, loss of livestock, and rations received under the Public Distribution System (PDS) were also investigated. It also attempted to note family income, employment and members employed under MGNREGA in the last three months, the number of paid workdays, and the instances when family members had to ask for food from neighbours, relatives or others.

b. **Household dietary assessment**

ASHA worker and the field facilitator attempted to assess the diet of beneficiaries at the household level during home visits. Staff noted the number of meals a household has in a day, its regularity throughout the
year, and seasonal changes in food consumption, if any. Furthermore, they noted the quantity of food consumed by family members throughout the day. In addition, project staff assessed the locally available consumable food (e.g., leaves, roots, and tubers). CAN involved ASHA workers and field facilitators in assessing household diet to this extent.

This assessment helped initiate discussions with families around child immunity and the adverse effects of lack of nutritious food resulting in decreasing immunity. ASHA workers and field facilitators used flip charts to explain what leads to malnutrition during home visits and monthly meetings. They also emphasised need to include nutritious food items like pulses, meat and fish and edible oil in the child’s diet.

c. Assessment of child feeding practices

After understanding the food situation at the household level and assessing the dietary pattern, pursuit was to understand the child’s feeding practices during home visits. The ASHA worker and field facilitator found out who regularly feeds the child, how often the child eats, and whether the child gets food on demand. Additionally, they also assessed the quantity of food consumed by the child throughout the day. In the case of infants, ASHA and field facilitator noted breastfeeding patterns such as the number of days of exclusive breastfeeding and breastfeeding along with supplementary diet. For older children, the number of times a child ate, food sufficiency in terms of whether the food satisfied the child and the different food groups the child’s diet covers was documented. For example: if the child consumes legumes, meat, bakery products and other ready to eat items, the necessity of the associated food groups are assumed to be fulfilled.

d. Assessment of hygiene and hand wash practices

The cleanliness surrounding the child and availability of water to maintain cleanliness are essential aspects to childcare to prevent infections. Water availability is critical as mothers and caregivers need water to wash their hands frequently before cooking, eating, and feeding the child. The ASHA workers and field facilitator attempted to ascertain whether the mothers and caregivers used soap to clean hands and cooking vessels before cooking, eating, and feeding the child.

Engaging ASHAs & field facilitator to assess household situation to improve household practices is a key added benefit of CAN.

ii. Individualised follow-up of children and parents counselling to address under-nutrition

The present scheme of the Government programmes focuses on children with severe acute malnutrition (SAM). Given the high risk of death among SAM children it is important to prioritise their needs. However, it is equally important to focus on growth faltering, severely underweight (SUW), moderately
underweight (MUW) children and children with moderate acute malnutrition (MAM) under six years. Underweight and MAM children often head towards malnutrition and run the risk of contracting associated ailments. Therefore, it is critical to regularly follow up underweight children and prevent their further deterioration to SAM category. It is thus imperative to focus on growth faltering, MAM, SUW and MUW children, in addition to SAM children to reduce the burden of malnutrition. CAN aimed to achieve this using a two-pronged approach:

a. **Counselling to increase parents' participation**

b. **Individualised follow-up of SAM, MAM, SUW, MUW children and children showing growth faltering**

**a. Counselling to increase parents' participation**

The Anganwadi and the Health Department are the two departments primarily responsible for reducing malnutrition among children below six years. Therefore, service delivery largely falls on the two departments and their functionaries. The perception that reducing malnutrition is the responsibility of ICDS and the health department is prevalent among Panchayat and community members. In addition, there is a lack of information and awareness about existing schemes. Therefore, CAN developed strategies to increase participation of family, community, and Gram Panchayat, to reduce malnutrition and not the Anganwadi worker alone.

The home visits conducted by ASHAs and field facilitators under CAN provided an excellent opportunity for the ASHA to interact with and counsel parents. Field facilitator and Block coordinator
encouraged ASHA workers to use every available opportunity to counsel parents. Counselling began while assessing the nutritional status (see chapter 3, 3b) of the family.

Measuring the nutritional status of children in the presence of the child’s parents was important and effective strategy. ASHA Worker and field facilitators used the child’s growth chart to inform them about their ward’s improvements. Communicating the nutritional status of underweight or malnourished children was an effective strategy to engage parents and address malnutrition and under-nutrition among children.

Other strategies used included demonstrating how to make and provide nutritious meals at home to improve the child’s weight and nutritional status. Advising sick children to seek immediate treatment, attending the hospital with parents, and accompanying them to the NRC or RH when providing referral services were other strategies. A ‘Growth Chart Campaign’ (see page 88) initiated in the intervention areas created another opportunity for ASHAs, field facilitators and block co-ordinators to explain growth chart to everyone in the village. Therefore, it was easy for mothers to base their discussions on nutrition and diet with reference to the growth chart of their ward. It also helped ASHAs and field facilitators suggest appropriate diet for children.

As a result of these concerted efforts, parents of children came to the Anganwadi to ask about the weight and grade of the child. Thus, parents ensured that they were present at time the Anganwadi worker was measuring the child. These measures ensured that the parents were enabled to plan concrete solutions to their child’s ailments and that they were invested in the growth and welfare of their child. Thus, CAN ensured that counselling by ASHAs, and field facilitator eventually increased parents’ participation.

b. Individualised follow-up of SAM, MAM, SUW, and MUW children and children with Growth faltering

Based on the anthropometric measurements and the age of the child, the nutritional status of the child is determined by ASHA workers and field facilitators, and the child is classified under five groups namely, SAM, MAM, SUW, MUW and normal category. Under CAN, special attention was paid to children under SAM, MAM and SUW. Weekly home visits were conducted for children in these groups. During the home visit, their weight was monitored. Ailing children are referred to Primary Health Centre (PHC), Rural Hospital (RH), Sub-District Hospital (SDH), or the Nutrition Rehabilitation Centre (NRC) as per protocol. On returning from the NRC, the children are followed-up for three to four consecutive weeks by way of weekly home visits by the ASHA worker and field facilitators. These weekly home visits proved important to prevent the child from slipping into malnutrition again after rehabilitation at the NRC as weekly weight gain and loss and nutrition was monitored. ASHAs also counselled parents to ensure that children gain weight.
Thus, regular home visits to underweight or malnourished children and active participation of the parents to ensure that most of the children did not remain malnourished was an important cornerstone of the project. Focus on MAM, SUW, MUW and growth faltered children ensured that many children were prevented from becoming severely malnourished (SAM). Since parents were themselves involved in the process, it was seen as a positive step towards empowering rural and tribal villages. Therefore, underlying that reducing malnutrition is a social process.

iii. Increased engagement between community and Anganwadi

Anganwadi is the chief provider of health and nutrition services at the level of a village and the hamlet. Therefore, Anganwadi workers are solely responsible for providing these services to pregnant women, lactating mothers, adolescent girls, and children under six years. Anganwadi workers and helpers have to take care of Anganwadi, are responsible for childcare and development, and complete administrative work that includes filling registers related to Anganwadi, maintaining anthropometric records and any other extra work delegated to them. The added responsibilities often result in poor delivering the primary services to the beneficiaries. At the same time, the prevalent notion that the Anganwadi centre provides only ‘Khichadi’ to children everyday exists in the villages. Its link to reduction of malnutrition, and the six critical services to pregnant and lactating mothers and children below six years of age is visibly missing in the villages. In addition, three departments run parallel community engagement programme to facilitate the implementation of their schemes in villages. The ‘Mata Samiti’ is set up under the ICDS, the ‘Aahar Samiti’ is set up under Amrut Aahar Yojana and the ‘VHSNC’ is set up the by Public Health Department under the NHM. However, these committees are often inactive in most places and are rarely involved in strengthening services. CAN managed to bring the three committees together. Active members of the three committees formed a ‘Nutrition Rights Group’ to achieve health and nutrition goals in the village. Thus, CAN attempted to strengthen the services of the Anganwadi through the sustained efforts of the stakeholders.

CAN initiated a dialogue between Anganwadi centre and the community to strengthen Anganwadi services. The following activities encouraged increased communication between the Anganwadi and the community:

a. Exchange of Information on nutrition services
b. Active participation of parents in the anthropometric measurement of children
c. Participation of parents and villagers in resolving Anganwadi related issues
d. Biannual feedback
a. Exchange of information on nutrition services

The CAN made a concerted effort to ensure that Nutrition Rights Group to works in tandem with the Anganwadi to provide the community nutrition and health services. As part of this effort, the project created awareness of the six services provided by Anganwadi and discussed Anganwadi’s role in reducing malnutrition among children under six years. ASHA worker, field facilitator and block coordinator explained to the villagers and parents the problems faced by Anganwadi workers. At the same time, discussing the parents’ problems with the Anganwadi worker helped her respond to the parent’s needs effectively. As a result, CAN established a two-way communication that allowed the stakeholders to gain a holistic understanding of issues and allowed communities to participate in problem solving. Thus, the Anganwadi worker was encouraged to improve services and tackle malnutrition with the support of the community actors and parents. At the same time, the beneficiaries relied on the Anganwadi worker for assistance with regards to their child. Thus, the project strengthened nutrition services by holding meetings at all levels, including the Anganwadi, Beat, Taluka, and District levels.

b. Active participation of parents in the anthropometric measurement of children

The next step was to increase active participation of parents as meals consumed at homes is an integral part of a child’s nutrition. Active parental participation starts with the parent’s involvement when the child’s physical examination and anthropometric measurements are taken at the Anganwadi.

The project CAN effectively organised growth chart campaigns (see chapter 6) to convey the importance of taking regular anthropometric measurements of children to parents and villagers. It helped carry the message of the importance of weight gain according to the child’s age. Therefore, involvement of parents while measuring their children increased. As a result of this increased involvement, parents themselves recognised whether their child was in the danger zone or the safe zone as depicted by the coloured bands in the growth chart. In some places, the day anthropometric measurement was taken began to be celebrated like a festival thus effectively engaging parents in addressing malnutrition.

c. Participation of parents and villagers in resolving Anganwadi related issues

The two-way communication established between the Anganwadi workers, and the community helped them raise problems related to the services in the monthly review and planning meetings held in the village. Discussing issues through participatory dialogue with parents, villagers, and Anganwadi workers resolved many problems locally.

Some of the problems faced were, Anganwadi’s faced difficulties opening on time in some cases, procuring two-time supplementary nutrition, and delay in appointment of Anganwadi workers in some cases. In other instances, Anganwadi workers did not get raw food for nutrition; and funds for implementing the AAY did not reach the Aahar Committee on time. CAN project attempted to resolve such issues with the assistance of Nutrition Rights Groups discussed at village level meetings and undertook concrete measures in several cases. Most issues resolved locally with collaboration between the Anganwadi worker, and the Anganwadi Supervisor. Members of the Nutrition Rights Group, block coordinators and field facilitators themselves followed up at the higher levels of Beat, Taluka, and District level.

These actions empowered the villagers to resolve
their own problems locally with active community participation.

d. Biannual feedback

CAN encouraged parents to provide biannual feedback regarding Anganwadi and related health services provided. An Anganwadi report card is prepared based on this feedback which serves as a guide on the services that need improvement.

As a result of these activities, Anganwadi services have been strengthened with increased engagement between the community and the Anganwadi.

iv. Engaging ASHA to improve nutritional status of malnourished children

The ASHA worker provides health services at village level under the NHM. They are trained to provide first aid and have tangible contacts with the health centres. Therefore, they serve as a link between the village, the villagers and the health system (PHC and RH) in addition to providing basic health services as per the needs of the village. However, since the children below the age of six years are expected to get services from Anganwadi, the work related to nutrition and malnutrition is mainly done by Anganwadi workers. Therefore, in the case of young children, the role of ASHAs is limited to vaccination and referral services only and often do not know about malnutrition in detail.

The need for a person in each village for continuous engagement was recognised by senior officers of the Tribal Development Department who suggested that ASHAs and a CAN volunteer would share the burden of the Anganwadi worker.

a. The importance of ASHA’s scope of work in CAN project

ASHAs come from the same locality, are in regular contact with the villagers, are aware of the local situation, and are an essential link between the government service and the village.

Therefore, ASHAs were trained in CAN to provide a number of services such as anthropometric measurement of children, counselling, growth chats, and conducting the weekly home visits to prevent child malnutrition. Trained ASHAs were able to take care of nutrition and health, demonstrated ways to feed children, make locally grown and homemade nutritious food, and find ways to develop good hygiene practices. During home visits, ASHAs stressed on the importance of edible oil in the child’s daily diet and avoiding items from bakeries popular in rural Maharashtra. The ASHAs took the initiative to provide health care to children immediately when they fell ill and referred children who needed medical attention to PHCs, rural or sub-district hospitals, and sometimes NRCs. The ASHAs would accompany the children to the health centre in some emergencies and ensure their treatment.
b. Continued follow-up of the child after rehabilitation from NRC

After the child returns home from the NRC after completing medical treatment, the child may become malnourished again if proper care is not received. ASHAs and CAN field facilitators followed up on children regularly during weekly home visits to prevent the child becoming malnourished again. The ASHAs monitored the child growth and constantly communicated with parents on the child’s progress. ASHAs played the essential role of following the child’s recovery post rehabilitation from the NRC.

c. Educating on growth chart in local language

Trained ASHAs in the intervention areas could explain the various aspects of the growth chart in the local language for the benefit of the villagers. For example, they explain the different bands in the growth chart, the method of plotting the chart and the meaning of the growth curve in local language using local examples. As a result, the village community, including the children’s parents, participate actively in their child’s anthropometry.

v. Improving inter-departmental coordination at the grass-root level and at higher levels

While the Anganwadi provides nutrition services under ICDS, the ASHA provides health services in the village under the NHM. In addition to these, the Tribal Development Department implements the AAY to provide a complete meal to pregnant women, lactating mothers, and eggs/bananas for children through the Anganwadi. Thus, three departments work together to provide health and nutrition services to prevent maternal and child mortality and improve maternal and child health and nutrition. Even though the three committees work towards achieving health and nutrition goals but work independent of each other.

a. Inter-departmental coordination at local level

Just as there are three departments running parallel programme to provide health and nutrition services, the three departments have also set up separate committees to facilitate the implementation of their schemes in villages. For example, the ‘Mata Samiti’ is set up under the ICDS, the ‘Aahar Samiti’ is set up under AAY and the ‘VHSNC’ is set up the by Health
Department under the NHM. These committees run by different departments have different members, run independently with little coordination, and are often defunct. Moreover, members are often unaware of their membership in the committees. Often these committees are set up in most villages for administrative purposes only. As a result, there is little or limited participation with limited information among members.

CAN managed to bring the three committees together. **Active members of the three committees together formed a ‘Nutrition Rights Group’** to achieve health and nutrition goals in the village. In addition, new members who wanted to work were also involved in the group.

The committee members sought to achieve a few deliverables and kept track of them. They discussed the problems of delivering them during the monthly meetings. They discussed problems with the Anganwadi worker, supervisor or sarpanch, CDPO to resolve issues. The group held monthly meetings to improve the Anganwadi and health services in their village through whatever funds available, including the Gram Panchayat funds. For example, some village committees decided to provide eggs or bananas and cover for the two days unavailable to children under the AAY. Some committees decided to make arrangements to store food grains required by the Anganwadi’s. Others purchased weighing scales and utensils. Committee members also addressed bottlenecks related to the AAY funds by discussing them with the concerned authorities.

Thus, inter-departmental coordination was achieved at the lowest level i.e., the village level. Apart from the inter-departmental coordination, the problem-solving skills, and capacities of ASHAs and Anganwadi workers strengthened as they were encouraged to take the initiative and interact in various meetings with the support of the Beat supervisors. The members of this Nutrition Rights Group were empowered and played an essential role of interacting with taluka level officials. Thus, the project successfully resolved issues by coordinating committee members from 420 villages participating in the CAN project. Health and nutrition took center stage.

**b. Inter Departmental Coordination at Block, District and at the State level**

With increased coordination among all committees working in the village, empowered villagers solve problems themselves effectively. However, some problems related to funds and procurement are beyond the capacity of the villagers as they are often systemic. Issues of training staff to conduct anthropometric measurements correctly cannot be resolved by the villagers. The location of the NRC far from the village deters the enrolment of children. The taluka and district level officials can solve these problems. Therefore, CAN
attempted to resolve these issues by facilitating joint meetings with the officials of the Tribal Development Department, ICDS and Health Department.

Teething issues of the supply of food under the AAY were taken up under the project. AAY implemented through Anganwadi is funded by the Tribal Development Department. Therefore, to resolve the difficulty of funds to procure food, the committee members and CAN Karyakartas communicated with ICDS and Tribal Development Department. Due to difficulties, the issue was taken up at the state level for resolution. Another positive example of coordination was found in Karjat, where committee members initiated repair work of an Anganwadi damaged due to heavy rains in coordination with the Tribal Development Department. Health check-ups of children were conducted in coordination with health officials at the taluka and district level especially in Junnar, Armori, Kurkheda. In addition, the decision to measure children in the presence of parents was taken at the state level Gabha Committee through the CAN initiative.

Thus, at the village to taluka, district and state level, the CAN staff and the village committee members were constantly communicating with the Public Health Department, ICDS Department and Tribal Development Department, leading to better convergence of efforts.

vi. Key value additions of CAN project

In conclusion, the project’s five strategies added value to the existing nutrition programme in a number of ways. Some of the key ways in which value was added to the project are:

1. Collectives of parents and active villagers were made aware about nutrition issues and mobilised to engage with the Anganwadi, enabling them to both monitor and support its services for improved nutrition of their children.

2. Individual parents of all malnourished children were actively engaged in improving feeding practices within their household, leading to major improvements in their child’s nutritional status.

3. Capacity of ASHAs was upgraded and they were proactively involved in weekly monitoring of every malnourished child, along with providing individualised counselling to their parents, and effectively linking children with health services when required.

4. Participatory dialogue and problem-solving channels were created at local level, enabling effective convergence for improved child nutrition among various departments’ frontline functionaries and community-based actors. Parents, village committee members were empowered to raise issues, and collaborations were catalysed which helped to overcome many nutrition and health service gaps.

5. Generating greater awareness in tribal communities, and attention of local functionaries, regarding need for improved delivery and utilisation of Amrut Aahar Yojana (AAY) supplementary meals, leading to major upgradation in provision of nutrition benefits for beneficiary tribal children and women.
Chapter 5
Positive impacts of CAN project

Implementation of CAN project, in collaboration with Health, ICDS and TDD departments, has yielded a range of positive changes in the community. This section draws upon quantitative analysis of program data and qualitative insights from field regarding positive impacts of CAN project in the community. Analysis of successive rounds of program data collected through the CAN App and report cards exhibits significant improvement in the nutritional status of under six children, as well as improvements in household nutrition practices and nutrition services. It also clearly shows improvements in anganwadi functioning in terms of anganwadi timing, opening it regularly, referral services, provision of supplementary nutrition. Improvement in the availability and delivery of AAY services with improved coverage of beneficiaries, quality of food and regular distribution of food is also evident through the analysis of program data. Analysis of resolution of issues interestingly shows, most of the issues were resolved at local level with active facilitation of committee members, active villagers, concerned front line staff and officials. Qualitative data from the project also echoes these improvements. Qualitative impacts were compiled through report cards and documentation. Impacts related to processes, governance and community participation and systems’ responsiveness were captured through the qualitative data. Success stories from the field provide insights into
positive changes at the community level. They indicate how communities with increased awareness have begun to participate proactively and establishing forums for dialogue at multiple levels, contributing to improved ICDS services. These impacts are emblematic of increased responsiveness of concerned front line staff, increase awareness and participation of the community in owning up the issue of nutrition in their villages.

This section is organized into two parts- in the first part, we discuss the positive effects of the CAN project with quantitative data analysis before and after the intervention. While in the second part, we describe the project’s positive impacts as documented through stories of change in communities.

i. **Data collection in the CAN project**

Program data pertaining to key components of the project is vital to monitoring its progress. It provides important inputs for measuring progress, modifying program strategy and hence help enable achieving program commitments. Variety of data was collected in the CAN project. Details of data collection are given in the table below:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Format in which data is entered</th>
<th>Frequency of data collection</th>
<th>Data collected and entered by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting formats</td>
<td>Manually in Excel</td>
<td>Monthly</td>
<td>Field workers</td>
</tr>
<tr>
<td>1. Poshan Hakk gat baithaka / meetings in villages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Anthropometry status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Follow up of children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Referrals to the children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Follow up of High-risk mothers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Child deaths</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth monitoring and tracking of children</td>
<td>Manually</td>
<td>Weekly/Monthly</td>
<td>ASHAs/Field Facilitators</td>
</tr>
<tr>
<td>Data app for Growth monitoring of children</td>
<td>App</td>
<td>Monthly</td>
<td>Field workers</td>
</tr>
<tr>
<td>Tool on Nutrition related services (Poshan Seva Prashnavali)</td>
<td>Excel</td>
<td>Six months</td>
<td>Field workers</td>
</tr>
</tbody>
</table>

All tools are designed in Marathi in a way that makes them easy for ASHAs and field workers to use. monthly reports and a nutrition related tool were filled by field workers using MS Excel formats. While anthropometric measurements for Growth monitoring of children were taken by ASHAs entered in the app by field workers.
**App for growth monitoring of children**

The anthropometry data filled in App was analyzed mainly with MS Excel, the statistical package SPSS (Version 20), and the “igrowup” macro provided by WHO Anthro. The standard WHO definitions for Wasted (WZH is <-2 SD), Moderately Wasted (WZH is <-2SD and >-3SD) and Severely Wasted (WZH is <-3SD) are used. Severe Acute Malnutrition (SAM) is defined as being severely wasted (WZH is <-3SD).

**ii. Positive impacts of CAN project based on before and after assessment**

Below we present the comparative impact analysis of situation before and after initiating the intervention of CAN project. The impact analysis focuses on improvements in following three key components of the project-

**a. Improvement in Nutritional status of children under six years of age**

**b. Improvements in Anganwadi functioning and services through community feedback and local problem solving**

**c. Improvement in Bharatratna Dr. APJ Abdul Kamal Amrut Aahar Yojana (AAY) scheme**

**a. Improvement in Nutritional Status of children under six years of age**

The CAN project covered total 21,601 children from 10 tribal blocks during the period from June 2019 to March 2020. In order to increase the number of children registered and attending the Anganwadi, persistent efforts were made to reach out to all children under the age of 6 years in the village/habitation, including those in hamlets of marginalised community, remote houses and migrant families.

Over a ten-month intervention period, from June 2019 to March 2020, anthropometry measurements were conducted and nutrition grades were calculated on a monthly basis for children in Anganwadi. CAN interventions included:

- Intensive follow ups of all the children Severe Underweight (SUW), Moderate Acute Malnutrition (MAM) and Severe Acute Malnutrition (SAM), diligently done every month by ASHAs in close coordination with the Anganwadi Workers.

- Home visits were also conducted by the ASHAs for each malnourished child at least once a week. Along with growth monitoring of children, they also provided individualised counselling sessions with family members of the child regarding child nutrition, food practices and health.

- In case of any ill malnourished child, guidance was provided for referral services, so that the child may be given care at the earliest.

Regular growth monitoring coupled with individualized counseling for parents/caregivers of malnourished children, in addition to improving nutrition practices at the household level, has led to substantial improvement in nutrition for the children covered by the project.

**a.1 Situation before CAN project intervention regarding growth monitoring in Anganwadis**

Prior to examining the impact of CAN project on nutritional status of children, it will be relevant to look at the general situation prevailing at time of initiation of the project, related to conduction of growth monitoring of children in Anganwadis. This includes availability of accurate weighing equipment, how precisely nutrition grades were being calculated etc. and understanding if there was any scope for improvement.
Prior to initiation of the CAN project, the need to improve detection of malnutrition among children in tribal areas had been repeatedly discussed in the official Gabha samiti (Core committee on nutrition and health of children in tribal areas of Maharashtra, headed by Chief Secretary and including Secretaries of TDD, Public Health, WCD and other departments). Taking cognizance of this concern, during the 12th Gabha samiti meeting held on 30th October 2017 it was decided that an independent assessment of child nutrition status in tribal areas should be carried out on sample basis, organised by the Public health department. Accordingly, such an independent survey by Health department staff and CBMP nodal NGOs was done in a sample of tribal villages in Nandurbar, Thane, Pune and Raigad districts. The survey covering 1659 children in 25 Anganwadis revealed that anthropometric data was incomplete in Anganwadi registers regarding 51% of children, and that nutritional status of 29% children had not been graded accurately. These findings were presented in the 13th Gabha samiti meeting held on 12th April 2018, when it was minuted that keeping in view significant deficiencies in Anganwadis brought to light by the survey, there was need for WCD department to take corrective actions. It was recommended that proper weighing scales should be ensured in Anganwadis, and weighing of children should be conducted in presence of VHSNC and Mata samiti members (Minutes of 13th Gabha samiti meeting, 12th April 2018’).

This officially endorsed survey conducted in 2018 highlighted deficient / inaccurate anthropometry instruments in many Anganwadis, and gaps in skills of several Anganwadi workers to perform accurate anthropometric grading, linked with inaccuracies in detection of malnourished children. Keeping this entire background in view while preparing for the CAN intervention, field workers compiled lists of children from 6 months to 72 months age in each project village in May 2019. These lists were obtained from Anganwadis, and listing of children was done collaboratively with ASHAs and Anganwadi workers. While preparing these lists from each of the 10 blocks of project intervention areas, it was observed that registered records were frequently incomplete. Although basic information for most of the children was mentioned, some critical details such as height, weight, grades and migration status were sometimes missing from the Anganwadi register. It was also observed that height and weight of children was not always taken regularly, and nutritional grading of children also tended to lack accuracy in several cases. Given this entire background it was accepted within the project team that due to various factors, the baseline levels of malnutrition as calculated accurately using WHO Anthro software were likely to be significantly higher than the levels reflected in Anganwadi registers at time of initiation of the project. Nevertheless the importance of reaching out and ensuring complete detection of all malnourished children (including severely malnourished children who might be staying in remote adivasi hamlets, or belonging to migrant families, and visiting the Anganwadi infrequently) was emphasised throughout the project.

a.2 Aggregate analysis of changes in nutritional status of ALL the children covered in the CAN project: Major reduction in malnutrition

The graph below shows remarkable reduction in percentage of SAM (severe wasting) and MAM (moderate wasting) among children during the period from June 2019 to February 2020. The proportion of SAM children was reduced from 5.2% to 2.5% i.e., 51.9% reduction was observed in children with SAM grade. Likewise, the proportion of MAM children was reduced from 14.3% to 8.8% i.e. 38.5% reduction was observed in children with MAM grade.
Table 2: Status of severe and moderate wasting

<table>
<thead>
<tr>
<th>Month (number of children)</th>
<th>% SAM</th>
<th>% MAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2019 (958)</td>
<td>5.2</td>
<td>14.3</td>
</tr>
<tr>
<td>July (726)</td>
<td>5.0</td>
<td>13.3</td>
</tr>
<tr>
<td>August (522)</td>
<td>4.0</td>
<td>11.3</td>
</tr>
<tr>
<td>September (563)</td>
<td>3.8</td>
<td>11.1</td>
</tr>
<tr>
<td>October (536)</td>
<td>3.4</td>
<td>9.9</td>
</tr>
<tr>
<td>November (449)</td>
<td>2.8</td>
<td>9.5</td>
</tr>
<tr>
<td>December (468)</td>
<td>3.0</td>
<td>9.3</td>
</tr>
<tr>
<td>January 2020 (433)</td>
<td>2.8</td>
<td>7.9</td>
</tr>
<tr>
<td>February (396)</td>
<td>2.5</td>
<td>8.8</td>
</tr>
</tbody>
</table>

Similarly, the data was analyzed for SUW children as well. The table below shows a reduction in proportion of SUW children during the period from June 2019 to Feb 2020. The proportion of SUW children was reduced from 14.1% to 8.9% i.e., 36.9% overall reduction was observed in SUW.
### Table 3: Status of underweight children

<table>
<thead>
<tr>
<th>Month</th>
<th>% SUW</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2019</td>
<td>14.1</td>
</tr>
<tr>
<td>July</td>
<td>13.1</td>
</tr>
<tr>
<td>August</td>
<td>13.0</td>
</tr>
<tr>
<td>September</td>
<td>10.8</td>
</tr>
<tr>
<td>October</td>
<td>10.5</td>
</tr>
<tr>
<td>November</td>
<td>10.4</td>
</tr>
<tr>
<td>December</td>
<td>10.8</td>
</tr>
<tr>
<td>January 20</td>
<td>9.6</td>
</tr>
<tr>
<td>Feb 20</td>
<td>8.9</td>
</tr>
</tbody>
</table>

### Graph 2: Status of underweight children

![Graph showing the status of underweight children with monthly data points from June 2019 to Feb 2020.](image)

#### a.3. Cohort analysis of changes in nutritional status of under 6 children covered by CAN project

In addition to the aggregate analysis for all the children covered in the project, cohort analysis was conducted in view of inconsistent attendance among children in Anganwadi. As mentioned before, total of 21601 children from 10 tribal blocks were covered by the project. In June 2019, the first round of anthropometry was conducted and children from all pockets were scanned and ensured that they were registered in the anganwadis. Field workers took a lot of effort and tried to reach out to every child on the lists of registered children in Anganwadi. Field workers also recorded the reasons why certain children were not available at the time of conducting anthropometry. In subsequent rounds of anthropometry, chronic absenteeism was observed in some children for a variety of reasons, including the children attending private pre-school facilities / balwadis and thus not attending anganwadi, children being migrated with parents at the time of anthropometry, and parents not sending their children to Anganwadi. Besides this, some children crossed the age of 72 months and moved out of the anganwadi during the project period, while younger children joined the anganwadi in middle of the project intervention period – hence they could not be included in the continued cohort. The availability of anthropometric measurements for 6 months or more during the period of intervention was considered an inclusion criterion for Cohort analysis. Based on this criterion, regular anthropometric data for 6 or more months was available for 12,205 Children, for whom the cohort analysis was carried out. Based on cohort analysis following improvements have been observed in SAM and MAM (based on Weight for Height -WZH).

#### Major reductions in levels of both moderate and severe malnutrition

The tables and graphs below illustrate the reduction in malnutrition among the cohort of 12,205 children who were regularly available for follow up over the
In the beginning of the intervention, in June 2019 of CAN process, total 997 children had SAM while total of 2169 children had MAM. After intensive follow up and counselling of parents/caregivers of under six children from June 2019 to February 2020, the proportion of malnourished children has substantially reduced to 504 and 1139 children respectively. In terms of percentage, proportion of SAM children was reduced by 49.4% (from 8.2% to 4.1%) and the proportion of MAM children was reduced by 47.5% (from 17.8% to 9.3%). Likewise, during the same period, the proportion of normal children in the cohort shows an increase of 12.5% (from 74.1% to 86.5%). Overall, the results of cohort analysis show a dramatic reduction in levels of both moderate and severe malnutrition.

Graph 3: Reduction in malnutrition during CAN intervention (June 2019 to Feb 2020)

Table 4: Number of SAM & MAM children in Cohort

<table>
<thead>
<tr>
<th>Cohort</th>
<th>June 19</th>
<th>Feb 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>9,039</td>
<td>10,562</td>
</tr>
<tr>
<td>MAM</td>
<td>2,169</td>
<td>1,139</td>
</tr>
<tr>
<td>SAM</td>
<td>997</td>
<td>504</td>
</tr>
</tbody>
</table>

**Table 5: Reduction in malnutrition in CAN areas from June 19 to Feb 20**

<table>
<thead>
<tr>
<th>Reduction in malnutrition in CAN areas from June 19 to Feb. 20 (based on Weight for Height -WZH)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percentage</strong></td>
</tr>
<tr>
<td>Status of MAM</td>
</tr>
<tr>
<td>Status of SAM</td>
</tr>
</tbody>
</table>

On the whole, it may be worth noting that, the intervention areas selected for the CAN project, are tribal blocks where malnutrition has persisted for several decades. While the general ICDS system has been operational across tribal areas of the state, due to a wide variety of factors the pace of reduction in malnutrition among tribal children in general has been quite slow.

**a4. Comparing results of CAN project with NFHS data**

If we examine the trends for NFHS data on child nutrition in tribal areas of Maharashtra over a recent four-year period (from 2015-16 to 2019-20) we see the following picture:
Severe wasting (increase of 3.85%) as well as severe underweight (increase of 6.32%) have actually marginally increased among tribal children in Maharashtra over this recent four-year period. Moderate wasting has marginally decreased (by 7.03%) during this period.

Compared to these overall trends for tribal children in Maharashtra, in the CAN areas based on aggregate analysis:

- 51.9% reduction was observed in children with SAM grade
- 38.5% reduction was observed in children with MAM grade
- 36.9% reduction was observed in children with SUW grade

These major improvements were achieved in just a 9-month period of intensive CAN project intervention (June 2019 to February 2020), before the COVID epidemic interrupted various activities.

There is no doubt that the reduction in child malnutrition achieved through this project is extremely significant.

**b. Improvements in Anganwadi functioning and services through community feedback and local problem solving**

Promoting Community-based monitoring of nutrition services was an integral part of the CAN project. The project emphasized strengthening community demand, improving access by beneficiaries to the facilities and services in Anganwadis, while also facilitating problem solving to address issues related to human resources and fund flow related to nutrition programmes. Field facilitators enabled Poshan Hakka Gat (Nutrition rights group) members and active members of VHSNCs to monitor functioning of Anganwadis with a view to improving their services.

As part of the CAN process, two rounds of service-related community-based data collection were carried out during June 2019 to March 2020. The six-monthly report cards along with observations compiled during the monthly meetings helped identify problems in each Anganwadi and were presented to the local functionaries and officials for resolution. Local issues were resolved mostly through joint action with members of Poshan Hakka Gat. Below, we present the analysis of the resolution of gaps which were identified and tackled through facilitation by the CAN project at different levels, which would help to understand how many issues were resolved at which level.

**b.1 Overall analysis of proportion of issues identified and resolved through facilitation by CAN project at different levels.**

As part of the CAN process, a total of 8368
problems were identified from 420 Anganwadis which were raised for resolution at different levels. Our analysis shows that of these issues, 65.3% were resolved through combination of the CAN project intervention and response from concerned official functionaries. If we see the level-wise breakup of this analysis, it shows that out of the total issues raised at a village and Anganwadi level, 89% of problems were resolved at that level itself. Out of the total issues raised at block and district or state level, after communication with the ICDS or public health functionaries, on an average 47% of problems were resolved. This analysis demonstrates that the CAN project was highly effective in ensuring the resolution of problems especially at community and Anganwadi level, with the proactive and persistent follow-ups by field workers and Poshan Hakka gat members. It clearly appears from this analysis that the community demand – system response – problem resolution loop was strongest at the village level, and operated at block to state level also, though with somewhat lower degree of effectiveness.

**Graph 4: Problems resolved through CAN project intervention at different levels**

Analysis of % of identified problems which were resolved through CAN project intervention at different levels

<table>
<thead>
<tr>
<th>Level</th>
<th>% Problems resolved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community level</td>
<td>89.9</td>
</tr>
<tr>
<td>Anganwadi level</td>
<td>89.4</td>
</tr>
<tr>
<td>Gram Panchayat level</td>
<td>46.6</td>
</tr>
<tr>
<td>Public Health Department</td>
<td>49.3</td>
</tr>
<tr>
<td>Block/ICDS level</td>
<td>55.4</td>
</tr>
<tr>
<td>District/State level</td>
<td>51.7</td>
</tr>
</tbody>
</table>

**b.2. Improvement in overall functioning and services of Anganwadi in CAN areas**

In this section, we describe improvements in functioning and various services of Anganwadis in CAN areas, based on analysis of report cards and monthly meetings data. It is evident that a very wide range of improvements in Anganwadis were observed after the CAN processes were initiated. These improvements have largely been due to a combination of - community activation and demand generation leading to identification of issues and gaps; systematic communication of these issues to ICDS functionaries at various levels for resolution; and response from the
ICDS system leading to closing of gaps which had been identified by the community as part of the CAN process.

**b.2.1 Improvement in overall functioning of Anganwadi**

At the beginning of the intervention, several issues such as low attendance of children in Anganwadi at the time of monthly anthropometry; irregular functioning of Anganwadis compared to daily working; many children not coming to Anganwadis; Anganwadi centres were not open for 4 hours daily etc, were observed in many of the intervention villages. Besides this, issues related to record-keeping were also

**Graph 5: Improvement in overall functioning and record keeping of Anganwadi**

Improvements in Anganwadi(AW) functioning and record keeping in CAN areas

<table>
<thead>
<tr>
<th>Issue</th>
<th>% Problem resolved</th>
<th>% Problem not resolved</th>
</tr>
</thead>
<tbody>
<tr>
<td>AW worker started attending in anganwadi regularly</td>
<td>82.6</td>
<td>17.4</td>
</tr>
<tr>
<td>AW started working for 4 hours daily</td>
<td>76.6</td>
<td>23.4</td>
</tr>
<tr>
<td>More children started attending AW</td>
<td>80.1</td>
<td>19.9</td>
</tr>
<tr>
<td>Presence of children increased at the time of anthropometry</td>
<td>84.0</td>
<td>16.0</td>
</tr>
<tr>
<td>AW worker started regular record keeping of anthropometry</td>
<td>99.4</td>
<td>0.6</td>
</tr>
<tr>
<td>AW worker started updating registers regularly</td>
<td>99.2</td>
<td>0.8</td>
</tr>
<tr>
<td>Anthropometry started in front of parents</td>
<td>94.2</td>
<td>5.8</td>
</tr>
</tbody>
</table>
noted. According to community meetings and report card data, in 103 Anganwadis, Anganwadi workers and helpers were not coming regularly for six days of the week, and hence Anganwadi functioning too was irregular. Also, some Anganwadis were functioning for less than four hours daily. These problems were addressed at local level through dialogue and regular community monitoring in 82% i.e. 85 Anganwadis, through the facilitation of field workers and dialogue with Anganwadi worker. Improved timings and regularity of Anganwadi functioning led directly to improved attendance of children in 125 (80.1%) out of 156 Anganwadis where this had been observed as an issue. During the preparatory phase of the CAN project itself, low attendance of registered children for anthropometric measurements was observed in 268 Anganwadis. Many children were registered at the Anganwadi but were not coming for monthly anthropometric measurements. Field workers’ consistent efforts in community mobilisation and awareness played an effective role in improving attendance of children for anthropometry. Attendance of children for anthropometry increased in 84% of Anganwadis (in 225 villages out of 268 villages where this gap was observed). Not performing anthropometry in the presence of parents of the children was also noted in 258 villages. The situation in this regard was improved in 94% of such Anganwadis, since gradually Anganwadi workers in nearly all CAN villages started taking anthropometric measurements in the presence of parents, and hence parents were made aware of their child’s nutritional status.

b.2.2. Improvement in various facilities in Anganwadi

Graph 6: Improvement in availability of kitchen related facilities

In many of the Anganwadis, kitchen related issues such as lack of proper shed for cooking, insufficient...
vessels for cooking and lack of proper containers for storage of food grain were observed. All these issues were raised at the Gram Panchayat level through CAN process and were resolved for most of the Anganwadis. The issue of availability and regular refilling of the gas cylinders was observed in 260 Anganwadis. The problem was discussed with block-level authorities. Officials communicated with the gas cylinder agencies for the regular supply of gas cylinders in time. The situation of regular refilling was improved in 40 out of 79 Anganwadis where cylinders were available.

**Improvement in availability of**

**anthropometry instruments, toys and educational material**

Many Anganwadis (around 150-160 Anganwadis) lacked well functional instruments for anthropometry at time of initiating the CAN process. These problems were reported at respective blocks/district level and follow-ups were conducted to ensure that these issues were attended too. In total, 751 issues were reported related to the functioning of anthropometric instruments of which 558 (74.3%) were resolved. The shortage of toys and educational material was discussed at Poshan Hakka gats and meetings of VHNSCs, and the situation in this regard was improved in more than 80% of Anganwadis. However, the regular calibration of weighing machines has remained unaddressed in majority of areas.

**Graph 7: Improvement in availability of anthropometry instruments, toys and educational material**

<table>
<thead>
<tr>
<th>Problem</th>
<th>% Problem resolved</th>
<th>% Problem not resolved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic weighing Scale</td>
<td>16.3</td>
<td>83.7</td>
</tr>
<tr>
<td>Salter Weighing Scale</td>
<td>20</td>
<td>80.0</td>
</tr>
<tr>
<td>Stadiometers</td>
<td>20.2</td>
<td>79.8</td>
</tr>
<tr>
<td>Infrantometers</td>
<td>2.1</td>
<td>97.9</td>
</tr>
<tr>
<td>Calibration of Weighing Scale</td>
<td>78.6</td>
<td>21.4</td>
</tr>
<tr>
<td>Toys</td>
<td>15.4</td>
<td>84.6</td>
</tr>
<tr>
<td>Education Material</td>
<td>20</td>
<td>80.0</td>
</tr>
</tbody>
</table>
b.2.3. Improvement in Supplementary feeding and Take-Home Ration for Anganwadi children

Problems such as irregular distribution of Poshan Aahar (supplementary food served in the Anganwadi) and Take-Home Ration (THR) in some villages were raised with ICDS officials at the Beat level. As shown in the table below, both these issues were resolved in most of the Anganwadis.

**Table 7: Supplementary services in anganwadi**

<table>
<thead>
<tr>
<th>Anganwadi supplementary nutrition services</th>
<th>Problems raised in no. of Anganwadis</th>
<th>Percentage of Anganwadis where problem was resolved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Poshan Aahar (Supplementary feeding) for 3 years to 6 years children in AW</td>
<td>136</td>
<td>96.3</td>
</tr>
<tr>
<td>Regular THR for 6 months to 3 years children</td>
<td>147</td>
<td>92.5</td>
</tr>
</tbody>
</table>

b.2.4. Improvement in delivery of health and referral services

Positive impacts were observed in provision of two critical health services for malnourished children i.e. Child Treatment Centre (CTC) and Nutrition Rehabilitation Centre (NRC). Beneficiaries from total of 161 Anganwadis were encountering problems related to availability of CTC/NRC services, dialogue with the local health officials led to these being resolved in 63% of instances. Referral services for malnourished children who required admission in CTC and NRC also showed improvement. Referral services for children became available in 67% of Anganwadis where these were earlier not adequately available.

The guidelines stipulate that Rashtriya Bal Swasthya Karyakram (RBSK) teams should conduct health checks for all in Anganwadis, once in every six months. However, these checkups were not being conducted in many Anganwadis. This issue was observed in 284 Anganwadis in the intervention area. The dialogue with the local health officials led to 33% of Anganwadis where checkups were earlier not being conducted, now receiving six-monthly health checkups.

**Graph 8: Improvement in delivery of health services**

- Improvements in delivery of health services: 32.0% Problem resolved, 68.0% Problem not resolved
- Checkups for malnourished children: 68.0% Problem resolved, 32.0% Problem not resolved
- CTC/NRC for malnourished children: 63.4% Problem resolved, 36.6% Problem not resolved
- Health checkups/ RBSK checkups: 33.1% Problem resolved, 66.9% Problem not resolved
- Pregnant mothers started getting free referrals: 92.6% Problem resolved, 7.4% Problem not resolved
- Referrals are given regularly to malnourished children: 33.1% Problem resolved, 66.9% Problem not resolved
b.2.5 Anganwadi related human resource issues

Anganwadi workers and Anganwadi helpers are the backbone of Anganwadi functioning. However, their vacant posts have been a long-standing issue in several parts of the state. During CAN project intervention, Anganwadi workers’ and helpers’ posts were vacant in 64 Anganwadis and 77 Anganwadis respectively in the project areas. After extensive follow up on this issue and communication at the district level, Anganwadi workers’ posts were filled in 69% of Anganwadis (44 Anganwadis) and helper’s posts were filled in 60% of Anganwadis (46 Anganwadis) where this gap had earlier been observed.

Table 8: Vacant posts in anganwadi

<table>
<thead>
<tr>
<th>Vacant posts</th>
<th>No. of Anganwadis</th>
<th>Posts filled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anganwadi worker</td>
<td>64</td>
<td>44 (68.8%)</td>
</tr>
<tr>
<td>Anganwadi helper</td>
<td>77</td>
<td>46 (59.7%)</td>
</tr>
</tbody>
</table>

As a whole, this analysis shows that the CAN project interventions were quite successful in raising and effectively communicating many problems related to child nutrition and health services in the project areas. In majority of instances, such issues could be resolved locally through community monitoring and dialogue, active facilitation of problem solving by field workers, and collaboration with concerned local authorities who took corrective steps. Problems such as the irregular opening of Anganwadis, irregular health checkups or non-availability of referral services etc. were often successfully resolved at the local level. The functioning of local-level committees with the active participation of members was also improved substantially. Quite notably, the issue of vacant posts of Anganwadi workers and helpers was also addressed significantly, based on follow-ups with the district level officials, and action being taken at their level.

b.3 Addressing community level gaps related to accessing nutrition and health services

Besides the need to ensure proper functioning of the Anganwadi and related services, important gaps were observed at the level of communities also in terms of their accessing required services. Attendance of children for immunisation sessions conducted in the Anganwadi was found to be inadequate in 111 Anganwadis at time of initiating the project. This was mostly related to children coming from remote tribal hamlets. Following the CAN intervention, with raised awareness among parents and community members, this gap was eliminated in 108 (97.3%) of the Anganwadis where this issue had been identified.

Similarly, attendance of children for pre-primary education in Anganwadi was found to be inadequate in 173 Anganwadis. Following the CAN intervention, in 123 (71.1%) of these Anganwadis, attendance by children for pre-primary education was observed to have improved. In some instances, due to lesser importance given by tribal parents for pre-primary education, and in other instances because certain parents were sending their children to private pre-school centers, this improvement was less dramatic though still quite positive.

While all these issues mentioned above are likely to be common in tribal areas across the state, they were addressed successfully in the CAN project areas, largely due to generating community awareness about services and entitlements to specific target groups, systematically identifying these problems through report cards and village-level meetings, and regular communication with concerned staff and officials for resolving the problems.

It must be emphasised that such wide-ranging problem solving in CAN areas has been a highly collaborative process in which community, civil
**society and official actors have all played important roles.** The CAN process acted as a catalytic framework which informed and activated beneficiaries and community members, ensured identification of key gaps in services and facilities being experienced by communities, enabled systematic communication of these issues to relevant officials and functionaries, and often with anchoring by the Tribal development department officials, provided a problem-solving platform to facilitate resolution of such issues. In large proportion of instances, public functionaries ranging from Anganwadi workers to block and district level ICDS and Health dept. staff positively responded to such issues being raised, and within their range of powers ensured improvements and changes in the interest of improving the nutrition and health of tribal children being served by them. Hence the CAN process must be viewed as a catalyst which brought together community members, civil society actors, and official functionaries in a joint problem-solving mode, leading to unique synergies and widespread positive improvements in nutrition and health related services for tribal children, through collaborative action.

**c. Improvement in Bharatratna Dr. APJ Abdul Kamal Amrut Aahar Yojana (AAY) scheme**

Since 2015, the Bharatratna Dr. APJ Abdul Kalam Amrut Aahar Yojana (AAY) is being implemented by the Tribal Development Department in the tribal villages of Maharashtra with the support of the WCD department and ICDS. The beneficiaries of the scheme include pregnant and lactating women, as well as under-6 children. The objectives of this scheme organised by TDD are very relevant, since it seeks to regularly provide much-needed supplementary cooked food to vulnerable beneficiaries in tribal areas across the state.

The CAN process aimed at improving utilisation of the scheme, including increasing the number of beneficiaries, and facilitating improved availability and delivery of food through local dialogue and closing logistical gaps by promoting community-oriented collaborative problem solving.

During the preparatory phase, certain common challenges were observed in the implementation of the scheme, which are briefly described to provide some background regarding the project interventions related to AAY.

**Situation of Amrut Aahar Yojana (AAY) at time of initiating CAN project interventions**

During the preparatory phase of the project, while forming Poshan Hakka Gats in the intervention villages, field workers held meetings with various local stakeholders including beneficiaries of AAY, active villagers, mothers of Anganwadi children, and members of Mata Gats to learn how AAY was functioning. These community level discussions revealed several areas of concern regarding delivery of AAY scheme benefits at the micro-level, including the following:

- Most of the beneficiaries were unaware of AAY provisions to serve eggs for 4 days in a week for under-6 children, and regarding official provisions for balanced diet with complete meal to be given to pregnant women and lactating mothers (such awareness gap was observed in practically all the project areas).

- Distribution of partial meal for pregnant women and lactating mothers. For example, instead of complete diet as prescribed in the GR for AAY, only couple of items like khichadi / dal rice, or chapati - vegetables were being given in the meal (identified in 253 Anganwadis).

- Distribution of food in reduced quantity to the children. For example, instead of distributing eggs
on 4 days per week, children were being given 2 eggs and 2 bananas per week (identified in 177 Anganwadis).

Due to intermittent fund flow for the scheme, Anganwadi workers were often forced to purchase grocery items on credit from local vendors to ensure continuity of food provisioning. Once the local vendor stopped giving food items on credit, provision of food under AAY was getting interrupted until they received the next instalment of funds (issue communicated from 85 Anganwadis).

Based on identification of such issues, problem solving dialogues were facilitated through the CAN process involving various stakeholders at the village, block and district levels, which helped to address many of the above-listed difficulties. Emphasis was given on generating widespread community awareness regarding the entitlements under AAY. Regular meetings with key stakeholders at the village/habitation level were conducted in all intervention areas of CAN. Issues reported in the six-monthly report card (First round in June 2019) and monthly meetings, were resolved in consultation with Anganwadi Worker. Block-level issues such as delay in fund flow from district to Block and then to Anganwadi level and delay in placing demand for funds from block to district level; distribution of milk powder to Anganwadi centre etc. were resolved through follow up and dialogue with AW Supervisor, CDPO, Dy. CEO and PO (TDD). While active facilitation and consistent follow-ups done by field workers were critical in persistently raising issues with concerned functionaries, corrective responses by front line staff and officials were instrumental in ensuring the resolution of the ground-level problems related to AAY scheme. The CAN process acted as a community-based communication and problem-solving platform, which brought together concerned stakeholders to ensure streamlined ground level functioning of the AAY scheme.

**Improvement in functionality of AAY related to CAN process**

Despite various challenges in the implementation of the scheme, functionality of the AAY scheme substantially improved in the CAN areas during the project intervention period. As mentioned above, issues that emerged in the meetings with beneficiaries, villagers and in report cards were followed up diligently by field workers and most of the issues were resolved at the local level itself with the cooperation of frontline staff and officials.

**Graph 9: Impact of CAN process on AAY benefits for children**

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Based on significantly improved community awareness and intervention of the CAN project, various issues related to AAY functioning were resolved in majority of Anganwadis in CAN areas. Much larger proportion of under-6 children started receiving the full amount of AAY diet items for 16 days per month as prescribed. Similarly, more children started coming to the Anganwadi and consuming the AAY food items there, making sure that the child itself was consuming this supplementary nutrition regularly.

**Graph 10: Impact of CAN process on AAY benefits for beneficiary women**

Similarly, linked with greater awareness among the pregnant and lactating women who are beneficiaries of the scheme, and dialogue with Anganwadi worker as well as other concerned officials, regularity of provision of AAY related meals increased significantly after the project intervention. The women beneficiaries started receiving all expected food items in the meal (five food items - dal, vegetables, rice, chapati/bhakari & egg/shengdana ladoo). Also women began to consume these meals in the premises of the Anganwadi, increasing their involvement and ensuring that they were getting the complete required supplementation.

Given the overall state of nutrition among tribal people, AAY is quite an important scheme. It is the only nutrition-related scheme in Maharashtra that is exclusively dedicated to tribal people. As noted in the earlier section, most of the local level issues regarding this scheme which did not have financial implications were handled quite well with active facilitation under the CAN project. There is no doubt that active engagement of community beneficiaries, along with local convergent action involving concerned stakeholders, can ensure that such important programmes achieve their full potential in reaching out to their target population of vulnerable tribal communities.
iii. Positive impacts of the CAN project based on qualitative insights

Going beyond the numbers, human stories of real change provide qualitative perspective into the CAN process and provide a window into people’s narrative of qualitative changes in their family and community. Through the CAN project, we have documented many such stories emanating from the field which give us a glimpse into how the CAN project’s intervention has contributed to comprehensive range of positive changes with regard to nutrition of tribal children, linked with significant improvements in health practices and services.

Below are ten selected stories, describing a variety of positive changes. These stories are just a small sample drawn from a larger collection of over 50 stories of change, which have been documented by SATHI during the CAN project. Most of these stories complement and explain the findings of quantitative impact assessments of the CAN as discussed in the earlier section. While the remarkable quantitative reductions in levels of child malnutrition tell us what happened as a result of the CAN project, these powerful qualitative stories describe the process of change, explaining how some of these changes actually took place in CAN areas.

Stories of change

1. Toddler moved out of malnutrition due to individualised counselling by ASHA

Jalwandi is a remote village in Junnar block of Pune district, which is situated in a hilly area. Therefore, access to routine health services is also difficult for this village. Getting health guidance from health workers is also a long way off. But the CAN project has trained and enabled ASHAs to reach out to tribal children in such remote villages with guidance from CAN field facilitators, while working closely with the Anganwadi. As a result, malnourished children are being promptly treated in this village.

During the home visits in this village, the ASHA weighed Vinit (name changed), a 2.3 years old child who weighed just 7.1 kg. According to nutrition grades, Vinit was in SUW grade. At the time of birth also his weight was only 1.5 kg. ASHA noticed that Vinit was constantly suffering from cold and cough. Similarly, his diet was not adequate for his age. Vinit’s mother also complained that he does not play much. Given this situation, CAN field facilitators along with the ASHA closely monitored Vinit’s health. They made frequent home visits to his house and counselled his mother regarding hygiene and food practices. She was guided to prepare nutritious food for Vinit using locally available ingredients. His mother followed this advice carefully. Gradually Vinit started improving. Eventually, he started playing and became energetic. In just two months, his health improved significantly and his weight increased to 8.6 kg. Vinit started asking for food by himself, and most importantly even though his nutritional status still needed further improvement, he was on the road to recovery. This positive development not only brought a smile to his mother’s face, but provided great satisfaction to the ASHA, Anganwadi worker and field facilitator who were working as part of the CAN process.

2. Use of PESA funds to buy utensils and chairs for the Anganwadi

During a visit to the Fari village of Kurkheda Block of Gadchiroli district, CAN field facilitators organised a meeting of all the mothers at the Anganwadi. During
this meeting, the tribal mothers raised the issue of the absence of plates and bowls available at the Anganwadi, which were required for them to eat the expected meals. The field facilitator informed the women that the Gram Panchayat could use funds available under the Fourteenth Finance Commission and PESA Act to buy utensils for the Anganwadi.

Women proposed the same during the village meeting, and the Gram Panchayat decided to provide funds to buy utensils for the Anganwadi. They received the bowls and plates in February 2019. In the same way, chairs were bought for the children attending Anganwadi.

While these positive changes are significant for the general improvement of the Anganwadi, it positively impacts the nutrition service as beneficiaries are willing to use the Anganwadi. Additionally, these processes are also essential to empower women to make proposals in the village meetings.

3. Nutritious Meal ‘Selfies’

In Kharangan village of Shahapur block of Thane district, the quality and taste of meals of the Anganwadi were reported to be unsatisfactory by mothers of children. The CAN field facilitators wanted to improve this situation so that all children would consume the required nutritious food. However, they could not check up on the meal quality every day. Therefore, they convened a village meeting and decided that the ASHA worker and mothers of children would regularly check the Anganwadi meal quality. Field facilitators also took up the concern of substandard quality and taste at a higher level. On the 22nd February 2019, during the Thane District Level Orientation Workshop, the concerned TDD Project officer appealed to all the Supervisors and Anganwadi Workers to cooperate in the intervention of CAN project and work towards the common goal of reducing malnutrition.

After this, the situation in the Kharangan village improved. However, the field facilitators wanted to ensure that these positive changes would be sustained. The CAN field facilitators came up with the novel idea of ‘Nutritious Meal Selfie’ as a solution. The ASHA worker in the village started taking pictures of the improved meals provided at the Anganwadi regularly and started sending them to the project team. This activity resulted in improved meal quality and considerably increased the number of tribal children and beneficiary women consuming the meals provided at the Anganwadi.

4. Closing the gaps between Anganwadi and beneficiaries through CAN process

In Jaam village of Shahada block in Nandurbar district, the Anganwadi services were inaccessible to tribal women and children in one particular remote hamlet, due to the lack of proper road and transport facilities to reach the Anganwadi. This hamlet had 60 families and 21 children from these families were registered at the Anganwadi, but none attended the Anganwadi. Field facilitators of CAN project found
an innovative solution to address this issue. They first discussed this issue in a meeting of the Poshan Hakka Gat (Nutrition Rights Group) in the village. Then they carried the food cooked in the Anganwadi with them, and conducted anthropometric measurements of the children in the hamlet while visiting there. Later, Health check-ups and immunisation services were provided, along with services for pregnant and lactating women.

The facilitators ensured that key Anganwadi services would be provided to the beneficiaries at their doorstep in their remote hamlet, until the government approved a new Anganwadi centre for them. As a result, the villagers in this hamlet started following up and demanding a separate Anganwadi. Moreover, villagers have become quite positive and supportive towards Anganwadi services, and appreciate that the Anganwadi could reach the beneficiaries even if the beneficiaries could not reach the Anganwadi.

5. Amrut Ahaar ‘Feast’ organised at the Anganwadi

In Chakore village of Tryambakeshwar block of Nashik district, the Anganwadi worker observed that the pregnant and lactating women who were beneficiaries of the Amrut Ahaar Yojana carried home the food items they received. However, the Anganwadi
worker was uncertain whether the beneficiaries consumed these meals themselves. Often, women from low-income families share such food with several other family members. After discussions on improving AAY during the CAN process, the Anganwadi worker started a new activity. She decided to organise the daily meals of the pregnant and lactating women at the Anganwadi itself as a ‘feast’. As a result, all the women beneficiaries started consuming their full meals at the Anganwadi in the presence of the Anganwadi worker, who ensured they received proper nutrition.

6. ASHA’s daughter finally admitted to NRC and improved

The ASHA of Dawandi village of Armori Block in Gadchiroli district had two daughters aged 3 and 1.5 years. Both the girls were severely malnourished, and as a result, the younger child lost her life in December 2018. The family was not unable to take appropriate care of both children. When the CAN process started and field facilitators found out about this incident, they met the family. Field facilitators convened a village meeting to address the issue and tried to send the child to the NRC. However, the ASHA worker and her family refused to take the older child, who was only 7 kg at the time and was severely malnourished, to the NRC.

The Medical Officer found out about the case through the CAN field facilitator and immediately provided a vehicle to take the girl to the NRC. However, the family still refused. After multiple home visits and counselling sessions by CAN facilitators, the family finally admitted the child to the NRC for 14 days. Field facilitators regularly followed up on the child even after her discharge, and she moved out of severe malnutrition.

7. ASHA’s enthusiastic efforts rejuvenated the Anganwadi

Mauje Untavad is a village situated in Shahada block of Nandurbar district, close to Shahada town. The disparity between the rich and the poor in the village is striking. For the poor families of the village governmental schemes and services, especially the ICDS scheme, play a vital role part in the lives of the villagers.

There were many malnourished children in the village before the CAN process started, making supplementary nutrition extremely necessary. However, the post of the Anganwadi worker was vacant for nearly six months, and all these services had stopped. As the villagers were not aware of the nutritional services, they also did not take this issue seriously.
During this period, the CAN project started in Shahada block. The Anganwadi workers were trained during the process. However, due to the vacant post of the Anganwadi worker in Untavad, the ASHA was selected to attend this training. Through this training, ASHA realised the importance of the Anganwadi services and decided to provide various services for children in her village while taking assistance from the Anganwadi helper. With the help of the field facilitator, she started regular home visits to the malnourished children. She also helped in the formation of the Poshan Hakka Gat (Nutrition Rights group) due to which awareness regarding child nutrition started spreading in the village community.

The malnourished children who were not getting treatment before, started getting treated. Accurate records were now maintained. The ASHA started trying to get the vacant post of Anganwadi worker filled and put forth a resolution for the same in the Gram Sabha. As a result, the efforts to get this post filled are ongoing. Until then, ASHA is working with all her capacity to make pregnant and lactating women and mothers of young children aware of the importance of the Amrut Aahar Yojana, which increased the number of beneficiaries availing of these services.

The village ASHA with the help of Anganwadi helper, continues to arrange the supplementary food, she encourages pregnant and lactating women and mothers of children to avail of this benefit, calls these women from house to house on time, and informs the beneficiaries about immunisation sessions. Thus, the nutrition and health services at Untavad were energised with the initiative of an ASHA who was activated through the CAN process.
8. Pending funds for Amrut Ahaar Yojana were disbursed and meals for beneficiaries were resumed!

The field visits of the field facilitators of CAN project started in October 2018 in Junnar block of Pune district. During these visits, Anganwadi workers informed them that since April 2018, the government had not managed to disburse required funds under the Amrut Aahar Yojana due to certain technical difficulties. The CAN Block Coordinator then met the concerned Deputy CEO and other district level officials and followed up the issue with them. As a result, District level officials from ICDS Department were alerted to the situation and ensured the release of funds. Keeping in view the seriousness of the issue, the concerned BDO and CDPO took immediate action, and Rs. 16 lakhs were released for AAY implementation in the block.

Based on communication and follow up by CAN facilitators, prompt actions were taken by concerned officials so that the issue of funds flow for the Amrut Aahar Yojana in Junnar block was resolved, and provision of meals for pregnant and lactating mothers and under-6 children was resumed.

9. Unwed tribal mother receives entitled health services

In the Adivasi (Gond) community, it is common practice that a girl of marriageable age often goes and lives with the prospective husband even before the marriage. Then, after saving enough money and food, the families get the couple married. In one such case, an unwed couple was living together in the village Tultuli of Armori block in Gadchiroli district. The young woman was 25 years of age and six months pregnant. However, due to a lack of a marriage certificate, she was not registered and was not receiving maternal health services and benefits. When the CAN field facilitators found out about this situation, they immediately intervened.

Their wedding was arranged at a local temple and their marriage was registered with the Gram Panchayat. The Gram Panchayat immediately gave the required documents, and the village ASHA registered the pregnant girl at the Primary health centre. As a result, she received all the health services as well as the Pradhan Mantri Matritva Vandana Yojana benefits. Due to all these timely interventions, she could receive relevant entitlements, and gave birth to a healthy 3.1 kg baby.

10. Mother and child enabled to reach District hospital for required treatment

In the village of Niharpayali of Kurkheda block in Gadchiroli district, a malnourished child was observed by the ASHA associated with CAN process. Upon further investigation, it was found that the child’s mother was suffering from tuberculosis and could not breastfeed the child properly. The Anganwadi worker and ASHA worker tried convincing the child’s family to take the child to the NRC, but the family refused. The Medical Officer intervened and visited the home on hearing this, but the family did not admit the child to the NRC.

CAN Field facilitators intervened in this situation.
First, they visited the family and explained to the child’s father the importance of treating the child and mother. They also explained the process and the treatment methods. Then, after receiving counselling from the field facilitators, the family was convinced and took the mother and child to the concerned health facility. The mother and child received treatment at the Sub-District Hospital for 30 days and were then discharged after recovery.

These selected stories of change related to the CAN process are just a sample of a broader tapestry of experiences, which give us a brief snapshot of the highly participatory processes which were catalysed across all CAN project areas. Common running threads in many of these stories are initiatives taken by frontline actors such as ASHAs as well as field facilitators, who were oriented and supported through the CAN process. This enabling process motivated them to close gaps in required health and nutrition services. For instance, the ASHA from village Mauje Untavad who was activated through the CAN process went the extra mile and dedicatedly worked for improving the delivery of nutrition and health services, while ensuring access for tribal women and children. Similarly stories such as the experience from Jaam village show that when the CAN process encouraged the Anganwadi to reach out to people with sincere efforts, people also stepped forward to engage with the Anganwadi. Moreover, when people realise that these services are meant for them, they feel motivated to contribute to them.

Field facilitators working closely with communities have developed innovations like ‘Nutritious meal selfie’ in Kharangan village, to promote provision and consumption of nutritious food in Anganwadis. Another important process promoted by CAN has been facilitation and guidance for malnourished sick children (demonstrated in the stories from villages Dawandi and Niharpayali), so that they could receive timely medical treatment at the Nutrition Rehabilitation Centre, which may have been life-saving in some situations. Further local networking with various officials has enabled service related problem-solving in many areas, as exemplified by disbursement of pending Amrut Ahaar Yojana funds in Junnar block, which resolved certain teething problems related to the scheme, benefiting dozens of Anganwadis and several hundreds of beneficiaries together.

These stories reveal how effective collaboration between communities, civil society facilitators, ASHAs, Anganwadi workers, Panchayat members and official functionaries which was catalysed through the CAN process can create a positive ecosystem which promotes communication and resolution of various issues, leading to improvements in delivery and access of nutrition and health-related services. These actions also created a ripple effect of empowering tribal communities and frontline workers throughout the intervention areas.

Given this wide range of positive quantitative and qualitative impacts emerging from the CAN process, there is no doubt that based on learning of appropriate lessons, such processes deserve to be strengthened and generalised throughout tribal areas of Maharashtra.

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1 Letter No. meeting-0418/C.N.165/Health-7, Dated 29/05/2018.
2 During March 2020 due to impact of the COVID epidemic & lockdown from 24th March onwards attendance of children and anthropometry in Anganwadis was affected. Hence, anthropometric data from June 2019 to Feb. 2020 have been taken during assessment of project impact.
Technical Details of anthropometric equipments used for assessment of nutritional status of children under six years of age in Community action for nutrition project are as follows:

1. **Weighing machine** – Baby & Toddler Electronic Scale (Salter Make) Model No.914  
   **Features** – Comfortable and secure weighing tray to keep baby safely in place, converts to a stand-on weighing scale by simply removing the tray, hold function keeps steady weight on display even when baby moves about, extra large 31mm/1.2” LCD weight readout, unique ‘bear’ design makes weighing more fun for toddlers

**Technical Details - 914 WHLKR**
- **Max Capacity**: 44 lb / 20kg; Battery: Alkaline 1 x 9V Battery
- **Dimensions (cm)**: 30 x 28.5 x 6; d: ½ oz / 10 g
- **Warranty**: 2 years (Pan – 55.5 x 25 x 8 cm)
- **Approval** - Legal Metrology (Act - 2009) Approval of Model 1987 (stamping)
- **Model**: SALTER Elec. Baby Weight Scale,  
  **Capacity**: Max 20 kg. MIN 1 Kg.  
  **Class**: III  
  e: 10 g. 

Doctor Beli Ram & sons pvt. ltd., h.o. 3/17, Asaf Ali road, New Delhi – 110 002

2. **Stadiometer**: 2131721009 – Portable Stadiometer, Mechanical, Make SECA-213  
   **Features** - Simple and quick to set up – no wall fastening required, large floor plate ensues stability, result clearly visible while measuring, precise reading of results, convenient and easy to transport.

**Technical Data:**
- **Measuring range**: 8-81”/20-205 cm  
- **Graduation**: 1/8 ” / 1 mm  
- **Dimensions, stadiometer (WxHxD)**: 13.3 x 83.9 x 23.2” / 337 x 2,130 x 590 mm  
- **Dimensions for transport (WxHxD)**: 13.3 x 7 x 24.6” / 337 x 177 x 624 mm  
- **Device weight**: 5.3 lbs / 2.4 kg

3. **Infantometer**: 2101721004 Measuring Mat for Babies and Toddlers, Make SECA – 210  
   **Features**- The mobile measuring mat seca 210 is a light weight, space saving solution for easy, precise measurement of the length of babies and toddlers while laying down. The fixed head piece and the sliding foot positioner make it simple to use

**Technical Data:**
- **Measuring range**: 10-99 cm, 10-99 cm / 4-39”  
- **Graduation**: 5 mm, 5 mm / ¼”  
- **Dimensions (WxHxD)**: 1,250 x 140 x 300 mm / 49.2 x 5.5 x 11.8”  
- **Dimensions convoluted (WxHxD)**: 120 x 140 300 mm / 4.7 x 5.5 x 11.8”  
- **Weight**: 575 g / 1.3 lbs  
  - With fitting for storing on wall
Chapter 6
Innovations in the Community

‘Growth faltering’ chart- mechanism to inform and involve parents

The Anganwadi worker conducts Anthropometric measurements of children under six years every month in the Anganwadi. The children’s height, length, and weight are measured every month. For children below two years of age, the Anganwadi workers measure the lengths of the child, while the height is measured when the children are above two years of age. Based on the nutritional status, the Anganwadi worker categorises children as severely underweight, moderately underweight, moderately malnourished, severely malnourished and expected normal growth. She then enters these records in the Anganwadi Register.

As a result, only the Anganwadi worker is aware of the nutritional status of children under the age of six in the village and parents are often unaware of their child’s nutritional status. Therefore, it is essential to measure the child in the parent’s presence and inform them of their growth and nutritional status. In addition, this action increases the parent’s participation in their child’s development and, in the process of addressing malnutrition. As a result, small initiatives in villages can tackle malnutrition.
Therefore, recognising the need to increase nutrition awareness among parent’s and villagers and its link to concrete action towards reducing malnutrition, CAN created a Faltering Chart. This chart helped in recording children’s growth information in one place.

**Simplifying and illustrating monthly growth of a child in a single chart**- CAN attempted to illustrate the monthly growth of children on a single chart based on their nutritional status using simple signs such as arrows and colour codes. For example, children with normal growth are coded green, medium underweight children are coded yellow, and severely underweight children are coded red. Development in a child’s nutritional status with an increase in weight is shown with the help of an upward arrow. A horizontal arrow denoted stable weight, while a downward arrow denoted a deterioration in weight and the corresponding nutritional status of each child. Thus, an upward arrow in green indicates that the child gained weight every month with normal growth. An upward arrow in red indicates the child is severely underweight even though the child’s weight is improving. Such a child would need continued care and support. Similarly, an arrow going in a straight line and an arrow going downwards in any colour indicates that the child needs care as he/she is not gaining weight (growth faltering). Thus, a child’s improvement and deterioration are pictorially represented in a manner that is easy for everyone to understand.

**Displaying growth faltering chart**- All Anganwadi’s under CAN displayed a growth faltering chart. It helped parent’s, Nutrition Rights Group members, ASHAs, and the Anganwadi workers immediately notice if the baby is not growing at the right pace or is losing weight and heading towards malnutrition. The chart also helped ASHAs, field facilitator, Committee members and Anganwadi workers to focus more on the child while interacting with the parents and enables the discussion on making nutrient-rich food at home using local foods to facilitate the child growth. In addition, when the child is sick, the chart guides the Asha and Anganwadi workers to communicate the necessary course of action, keeping the chart in mind.

At a macro level, the growth chart helps understand the growth of all the children in the village. Thus, both the initiatives under this are found to be useful. The nutrition chart showing the nutritional status of the village for the village parents, members of the ‘Nutrition Rights Group’, ‘Mata Samiti’, and VHSNC’ is like a ‘realistic mirror’.

**Growth chart campaign - Public participation tool for malnutrition relief**

Knowing the growth chart’s benefits, CAN attempted to start a campaign around the growth chart. The workers arranged talks on the growth chart at a time convenient to the villagers. The meeting usually took place in the village’s centre at the village square or near the Anganwadi. Field facilitators and ASHA Worker of CAN laid the growth chart on the ground
and explained the chart with the participation of the Anganwadi workers to everyone in a simple language. Field facilitator and ASHA Worker explained all steps, from measuring the weight for the age of the child and marking these measurements on the growth chart. The process was also demonstrated with the help of stones to make it easy for everyone. Thus, people saw and understood the meaning of colour-coded categories.

While the stress was on growth charts, the campaign also provided an opportunity to discuss other issues around other topics related to nutrition, such as the importance of the first thousand days of a child’s life and the nutrition of pregnant women and lactating mothers. Field facilitator and ASHA Worker of CAN attempted to explain these topics using relatable examples such as growth in saplings. This awareness increased the involvement of all villagers.

A direct impact of these activities is that the perception of Anganwadi centres merely as centres for distributing food (Khichadi) for children under six years and pregnant women and lactating mothers was to an extent replaced by broader understanding about function of Anganwadi and its importance for communities. As result, villagers actively participated in finding solution for the nutritional benefit of all children in the village. Although malnutrition may seem like a complex technical issue, this innovation demonstrated that it is possible to reduce malnutrition to a large extent if people work hand in hand in coordination of Anganwadi workers, ASHAs and other concerned authorities.

CAN Karyakartas have completed at least three to four such rounds of growth chart campaigns in each village of CAN intervention area.

VCDC at home in lockdown! (Family Level Village Child Development Center- ‘Home VCDC’)

Under ICDS, the government runs the Village Child Development Centre (VCDC) which provides services to malnourished children at the village level. However, during Covid-19, the Anganwadi and the child development services completed shut down. As a result, malnutrition among poor and vulnerable families depending on the services of the VCDC was acute. Block coordinator and field facilitator of CAN took cognisance of the issue and decided to resolve it by playing a vital role in this endeavour.

When the Anganwadi centres shut down during lockdown, the Gram Bal Vikas Kendra was started in every village to treat SAM and MAM children in the village itself. These centres provided services to children and counselled parents. However, it was imperative to avoid crowds to prevent the spread of COVID-19. Therefore, it was impossible to call malnourished children and their parents to the VCDC as malnourished children would be susceptible to infection, causing further problems.

At the same time, special efforts were made in Pune
Keeping Junnar taluka malnutrition free during the pandemic was challenging. It was thought that the VCDC could be an effective medium at the family level. However, due to the gravity of the situation, the government system also needed cooperation from NGOs. The project CAN provided this collaboration. Rachna, the local project partner, took the initiative to provide medicines to families accessing health services from VCDC. Representatives of Rachna Sanstha appealed to the Generic Drug Sales Center in Pune to supply these drugs, and the centre obliged. Similarly, in Junnar, Anganwadi workers, Anganwadi supervisors, block coordinator and field facilitator of CAN, and other colleagues contacted Gram Panchayat Members, the Sarpanch, and Gram Sevaks to implement the new scheme. Under the guidance of the Gram Panchayat, ration shops supplied food grains for VCDCs. Thus, a number of people including Taluka level office bearers, block coordinator and field facilitator of CAN, Anganwadi workers and supervisors collaborated with grocery shops, chemists, Gram Sevaks and Gram Panchayat members to bring the initiative to fruition.
field facilitator of CAN was able to find funds within the 14th Finance Commission, Village, Water Supply Committee and PESA Committee to start ‘Family Level Village Child Development Center- Home VCDC’.

The Anganwadi workers of the village as well as the Anganwadi supervisors supported this. Other officials such as Child Development Project Officer Haribhau Hake, Block Development Officer Hemant Garibe, Taluka Education Officer Pandurang Memane, ASHA Worker, block coordinator and field facilitator of CAN, representatives of Executive Development Organization and other social and administrative sector workers contributed towards this effort.

As a result of these developments, a fund of Rs.2000 (for each family) was allocated for supply of 2 kg jaggery, 2 kg wheat, half kg ghee, half kg black date, coconut, 20 packets of Amaranth chikki and some important medicines were made available. Thus began home-based VCDC centers during the lockdown. The CAN process played an important role in Junnar taluka during the Emergency.

Serving jaggery and peanuts instead of biscuits under mid-day meal scheme

Along with malnutrition in children, CAN led to improvements in the mid-day meal scheme. As stated earlier (page no. 44), CAN provided information and guidance to parents on a nutritious diet. However, the project focused on children below six years, and those above six years are not included in the intervention. In a meeting of parents in Pune District and the local partner ‘Rachana’, parents suggested that the intervention should cover children above six years. Therefore, CAN decided to address issues related to the mid-day meal plan in Junnar.

To address the issues in Junnar block related to mid-day meal, CAN project staff visited few schools. Block coordinator and field facilitator of CAN felt the need to replace of biscuits instead with nutritious food in Mid-Day Meal scheme. This change was discussed with Zilla Parishad schools. Following the discussions, block coordinator and field facilitator of CAN suggested replacing biscuits with Chikki since the nutritional value of biscuits is low. However, teachers were concerned about the quality of Chikki manufactured. As a result, the manufacturing issues, including the expiry date, were brought to the attention of Block Education Officer Shri. Pandurang Memane. Following discussions with members of the Zilla Parishad in Junnar, members of Rachana, and school-teachers, Shri. Memane decided to provide jaggery-and peanut sweets to children. The decision to provide jaggery and peanut sweets was immediately executed in 352 Zilla Parishad primary schools in Junnar Taluka. Eighteen thousand one hundred sixty-eight children in Zilla Parishad got jaggery-peanut once a week.
Anthropometry after using sanitizer during lockdown

The entire state of Maharashtra was under strict lockdown for many months during Covid-19 pandemic, and Anganwadis were closed for children. During this period, the Anganwadi workers did not check the nutritional status of children. Problems started when the ASHAs weighed children at home under CAN. Parents were scared that the baby would contract COVID-19 as the ASHA was constantly in contact with the COVID-19 patients.

During the lockdown, in door-to-door visits, the Anganwadi workers and ASHAs surveyed the village to identify COVID-19 patients and quarantined those who had a history of travel. Parents suspected that their children would get the infection if they contacted the ASHAs and Anganwadi workers. Therefore they refused to get their children weighed by the ASHA and Anganwadi workers. As a result, the field facilitator and ASHA workers of CAN suggested that parents themselves take the necessary measurements. The field facilitator and ASHAs under CAN ensured that the parents measured children correctly. Despite this, parents hesitated to measure their wards. ASHAs and field facilitator carried stadiometer, infatometer and weighing scale to every house. The instruments required sanitisation after every use to reduce the risk of infection among children. The Panchayat procured the sanitiser for this purpose and the parents of children began measuring their wards as planned. Thus, CAN continued working during lockdown in Ghatghar, Jalwandi, Usaran, Khadkumbe, Chavand Shirol. Underweight children were treated at home and successfully monitored for two months during this period.

‘Health Cards’ to monitor growth at household level

Monthly anthropometric measurements of children under six years at the Anganwadi helped in recording the nutritional status and growth of the child. With the help of these measurements, the Anganwadi worker classified children as severely underweight, moderately underweight and normal children to
monitor their growth using a Growth Chart. Colour coded categories demarcate children in each category (see page 88 on Growth faltering). However, since the Anganwadi worker conducted these activities in the Anganwadi, parents often had little understanding of their child’s status. This is also a reason why traditionally parent’s participation in improving the nutrition of the child remained low.

The motivation to introduce a Health Card was stirred due to the usefulness of the Vaccination Card. The Vaccination Card records all vaccinations given to the child. Showing the Vaccination Card Health Centre helps the health staff get all the necessary detail to suggest further action. The same thought drove CAN to develop a Health Card to monitor the regular growth of the child.

The ASHA worker under CAN project recorded the growth and nutritional status of the child on the Health Card based on monthly anthropometric measurements. Colour codes and signs such as arrows are used to denote the child’s nutritional status on the Health Card just as they are used to monitor growth faltering (see page 88 on Growth faltering). Thus, every month the ASHA worker under CAN project fills the Health Card with pictorial representations of the child’s growth information.

Information in the Health Card was easy for parents to understand. It was also a helpful tool for parent’s counselling as the ASHA worker could pay special attention to children with yellow and red codes. In addition, the ASHA workers under CAN process advised parents to take special care of children if growth falters.

Thus, the Health Card is helpful to simplify information for parents, explain alarming cases, increase the role of parents in supporting their ward, and ensure their active involvement in the prevention and reduction of child malnutrition. At the same time, the Health Card helps parents have meaningful discussions with Anganwadi worker, ASHA and field facilitator and block coordinator of CAN.

The Health Card initiative is implemented in all intervention areas.

**Using of earthen pots to store fruits and vegetables (Matka fridge)**

Tribal hamlets are remote and far away from the market villages. Therefore, it was difficult to provide a complete meal of vegetables, eggs, bananas, or fruits according to the Department for Tribal Development regulations. Perishable items such as leafy vegetables, eggs, bananas and other fruits spoil quickly. A lack of storage facility for such items in Anganwadi makes it impossible for Anganwadi workers to store them. It is also impractical for the Anganwadi workers to fetch these raw materials or vegetables daily from the market. Therefore Anganwadis
in the tribal area find it difficult to provide children with regular nutritious meals. Field facilitator, block coordinator and ASHA worker of CAN noticed these difficulties during project implementation and decided to use local methods of storing food items.

People traditionally use earthen pots to store cold water in urban, rural, and tribal areas. These earthen pots were considered to store perishable items such as fruits, vegetables, and eggs. Thus the concept of ‘Matka Fridge’ came into existence. For this, sand was dug, and the earthen pot was kept inside the sandpit. Water was sprinkled over the sandpit covering the earthen pot to increase cooling. The dried sticks are then placed horizontally inside the earthen pot on which vegetables and eggs were stored.

Thus, Matka Fridge was an innovative concept that stores fruits, green leafy vegetables, and eggs from locally sourced ingredients. This innovation has reduced the hassle of Anganwadi workers. In addition, the beneficiaries get regular eggs from their supplementary nutrition regularly.

Matka fridges were implemented in Junnar Block with the help of ASHA, Anganwadi Worker and Nutrition Rights Group and parents. The earthen pot or the Matka was locally available at affordable rates. Installation was also not expensive, so this was a cost-effective and a sustainable option to store fruits, eggs, and vegetables in resource constraint settings.

**Children’s corner (Bal Kopra)**

Various studies suggest that malnourished children have reduced productivity by around 20% early in age. Naturally, therefore, it affects the state and the country. It is thus essential to improving child nutrition at home. However, many conditions obstruct the expected growth of a child in tribal areas. Improper and irregular diet is one of the many conditions restricting children’s growth in tribal areas. In addition to these, commercial advertisements of packaged food with little to no nutritional value also influence bad food practices in tribal areas. Given this situation, it is essential to address this issue to tackle malnutrition.

Block coordinator, field facilitator and ASHA worker of CAN were told that parents often working outside the home could not provide a nutritious diet to the child. For this purpose, a Child Corner or a Bal Kopra was implemented in the villages in Junnar Taluka of Pune District under CAN.
Bal Kopara is a food corner for children where nutritious food is available to the child. Parents were encouraged to create such a food corner at home where nutritious food items like groundnut & jaggery ladoo, ragi ladoo, rajgira ladoo, ground nuts, chana, etc, are kept. This corner is easily accessible for children and they can eat these food items whenever they are hungry. This concept has been implemented at household level in all habitations of Junnar and some of the selected habitations of CAN areas.

Thus, typically, children who were eating readily available packaged food or fast food from nearby shops, started eating nutritious food, this innovation helped in making improvement in child’s diet.

**Including CAN in local festivities (Ranbhajya Mahotsav)**

Ranbhajya Mahotsav is a local festival that celebrates local wild vegetables. In the intervention areas under CAN this festival was organised to address food diversity and improve nutrition among Tribal Children. This activity was conducted in September at various areas such as Karjat, Shahada, Junnar, Kurkheda, Armori, Shahapur and Tryambakeshwar.
GLIMPSES OF CAN PUBLICATIONS
Aahar Committee (diet Committee) – This committee was established under the Bharat Ratna Dr. A.P.J. Abdul Kalam Amrut Aahar Yojana in every village/habitation of tribal areas of Maharashtra, which was initiated by the Tribal Development Department. This committee constitutes the following members at the local level such as women PRI members, pregnant women, lactating mothers and Anganwadi workers in rotation.

Acute malnutrition – Also known as ‘wasting’, acute malnutrition is characterised by a rapid deterioration in nutritional status over a short period of time. In children, it can be measured using the weight-for-height nutritional index or mid-upper arm circumference. There are different levels of severity of acute malnutrition: moderate acute malnutrition (MAM) and severe acute malnutrition (SAM).

Anaemia – Characterised by reduction in haemoglobin levels or red blood cells, which impairs the ability to supply oxygen to the body’s tissues, anaemia is caused by inadequate intake and/or poor absorption of iron, folate, vitamin B12 and other nutrients. It is also caused by infectious diseases such as malaria, hookworm infestation and schistosomiasis; and genetic diseases. Women and children are high-risk populations. Clinical signs include fatigue, pallor (paleness), breathlessness and headaches.

Anthropometric status – The growth status of an individual’s body measurements in relation to population reference values.

Anthropometry – Anthropometry is the use of body measurements such as weight, height and mid-upper arm circumference (MUAC), in combination with age and sex, to gauge growth or failure to grow.

Body mass index (BMI) – Defined as an individual’s body mass (in kilograms) divided by height (in metres squared): BMI units = kg/m². Acute malnutrition in adults is measured by using BMI.

Chronic malnutrition – Chronic malnutrition, also known as ‘stunting’, is a form of growth failure which develops over a long period of time. Inadequate nutrition over long periods of time (including poor maternal nutrition and poor infant and young child feeding practices) and/or repeated infections can lead to stunting. In children, it can be measured using the height-for-age nutritional index.

Community-based management of acute malnutrition (CMAM) – This approach aims to maximise coverage and access of the population to treatment of severe acute malnutrition by providing timely detection and treatment of acute malnutrition.
through community outreach and outpatient services, with inpatient care reserved for more critical cases. CMAM includes: inpatient care for children with SAM with medical complications and infants under six months of age with visible signs of SAM; outpatient care for children with SAM without medical complications; and community outreach for early case detection and treatment.

**Complementary feeding** – The use of age-appropriate, adequate and safe solid or semi-solid food in addition to breastmilk or a breastmilk substitute. The process starts when breastmilk or infant formula alone is no longer sufficient to meet the nutritional requirements of an infant. It is not recommended to provide any solid, semi-solid or soft foods to children less than six months of age. The target range for complementary feeding is generally considered to be 6–23 months.

**Dry feeding** – Food provided in the form of a dry (take-home) ration.

**Early initiation of breastfeeding** – Breastfeeding within one hour of birth.

**Exclusive breastfeeding** – An infant receives only breast milk and no other liquids or solids, not even water, with the exception of oral rehydration salts (ORS) or drops or syrups consisting of vitamins, mineral supplements or medicines. UNICEF recommends exclusive breastfeeding for infants aged 0-6 months.

**Food fortification** – The addition of micronutrients to a food during or after processing to amounts greater than were present in the original food product. This is also known as 'enrichment'.

**Food security** – Access by all people at all times to sufficient, safe and nutritious food needed for a healthy and active life. (1996 World Food Summit definition).

**Food taboos** – Foods that are not eaten for cultural or religious reasons.

**Fortificant** – Vitamins and minerals added to fortify foods.

**Gabha Committee** – A high-level committee, GABHA Samiti (Core committee on child nutrition in tribal areas of Maharashtra), has been constituted under the chairmanship of Chief Secretary Maharashtra State, in coordination with 9 line departments and senior officials from 16 tribal districts to monitor the Navsanjeevani Yojana and to reduce child mortality in tribal areas. The government has created this committee in 2013. The committee meets every three months.

**General food distribution or general food ration** – Distribution of a combination of food commodities to an emergency-affected population.

**Growth faltering** – When growth falters, i.e. when
growth is not adequate, the line on the growth chart stays flat or goes in a downward direction, which is called Growth faltering. The faltering could be due to several reasons – recent food insecurity, an illness, some event in the family-like loss of a member, domestic violence etc.

**Growth monitoring and promotion** – Individual-level assessment where the growth of infants and young children are monitored over time in order to identify and address growth faltering and growth failure.

**Height-for-age nutritional index** – A measure of stunting or chronic malnutrition.

**High-energy peanut butter paste** - A common ready-to-use therapeutic food (RUTF or RUF) which is a high protein and high-energy peanut-based paste that tastes slightly sweeter than peanut butter. It requires no water for preparation or refrigeration and has a two-year shelf life, making it easy to deploy in difficult conditions to treat severe acute malnutrition. It is distributed under medical supervision, predominantly to parents of malnourished children whose nutritional status has been assessed by a doctor or a nutritionist. (Communications note: Plumpy’nut is one well-known brand of RUTF, but the Supply Division notes that we should not use that brand name when talking about RUTFs because it would be to the detriment of other brands, resulting in a less competitive market for RUTFs. It is better to just say high-energy peanut butter paste).

**Home-based care** – Care and/or nutrition interventions given to individuals in their homes.

**Infant and young child feeding (IYCF)** – Term used to describe the feeding of infants (less than 12 months old) and young children (12–23 months old). IYCF programmes focus on the protection, promotion and support of exclusive breastfeeding for the first six months, on timely introduction of complementary feeding and on continued breastfeeding for two years or beyond. Issues of policy and legislation around the regulation of the marketing of infant formula and other breastmilk substitutes are also addressed by these programmes.

**Low birthweight** – A birthweight of less than 2,500 grams.

**Macronutrients** – Fat, protein and carbohydrates that are needed for a wide range of body functions and processes.

**Malnutrition** – A broad term commonly used as an alternative to ‘undernutrition’, but which technically also refers to overnutrition. People are malnourished if their diet does not provide adequate nutrients for growth and maintenance or if they are unable to fully utilise the food they eat due to illness (undernutrition). They are also malnourished if they consume too many calories (overnutrition).

**Micronutrient deficiency diseases** – When certain micronutrients are severely deficient owing to insufficient dietary intake, insufficient absorption and/or suboptimal utilisation of vitamins or minerals, specific clinical signs and symptoms may develop. Scurvy, beriberi and pellagra are classic examples of nutritional diseases.

**Micronutrient malnutrition** – Suboptimal nutritional status caused by a lack of intake, absorption or utilisation of one or more vitamins or minerals. Excessive intake of some micronutrients may also result in adverse effects.

**Micronutrients** – Essential vitamins and minerals required by the body in miniscule amounts throughout the life cycle.

**Mid-upper-arm circumference** – The circumference of the mid-upper arm is measured on a straight left arm (in right-handed people) midway between the tip of the shoulder (acromion) and the tip of the elbow (olecranon). It measures acute malnutrition or wasting in children aged 6–59 months. The mid-upper arm
circumference (MUAC) tape is a plastic strip, marked with measurements in millimetres. MUAC < 115mm indicates that the child is severely malnourished; MUAC < 125mm indicates that the child is moderately malnourished.

**Moderate acute malnutrition** – Defined as weight-for-height between minus two and minus three standard deviations from the median weight-for-height for the standard reference population.

**NRC** - Nutrition Rehabilitation Centre (NRC) is a unit in a health facility where children with SAM are admitted as per the defined admission criteria and managed with medical and nutritional therapeutic care. Once discharged from the NRC, the child continues to be in the Nutrition Rehabilitation program till they attain the defined discharge criteria from the program.

**Nutrition surveillance** – The regular collection of nutrition information that is used for making decisions about actions or policies that will affect nutrition. In emergency situations, nutritional surveillance is part of early warning systems to measure changes in nutritional status of populations overtime to mobilise appropriate preparation and/or response.

**Nutrition survey** – Survey to assess the severity, extent, distribution and determinants of malnutrition in a population. Nutrition surveys in emergencies assess the extent of undernutrition or estimate the numbers of children who might require supplementary and/or therapeutic feeding or other nutritional support.

**Nutritional index** – Different nutritional indices measure different aspects of growth failure (wasting, stunting and underweight) and thus have different uses. The main nutritional indices for children are weight-for-height, MUAC-for-age, sex and height, height-for-age, weight-for-age, all compared to values from a reference population. In emergency situations, weight-for-height (wasting) is commonly used for nutritional assessments.

**Nutritional requirements** – The amount of energy, protein, fat and micronutrients needed for an individual to sustain a healthy life.

**Nutritional screening** – Individual-level assessment where each person is measured in order to identify and refer those needing further check-ups or such services as supplementary or therapeutic feeding.

**Nutritional status** – The growth or micronutrient status of an individual.

**Public nutrition approach** – Broad population-based approach to address nutritional problems that explicitly recognises the complex and coexisting causes of malnutrition, the different types of interventions to address nutrition, which range from the individual to population level, as well as the broader social, political and economic factors that determine nutritional status.

**Rapid nutrition assessment** – An assessment which is carried out quickly to establish whether there is a major nutrition problem and to identify immediate needs of the population. Screening individuals for inclusion in selective feeding programmes is also a form of rapid nutrition assessment.

**Ready-to-use therapeutic foods** – Specialised ready-to-eat, portable, shelf-stable products, available as pastes, spreads or biscuits that are used in a prescribed manner to treat children with severe acute malnutrition.

**Replacement feeding** – For infants who are not being breastfed, the provision of a nutritionally adequate diet until the age at which they can be fully fed on family foods.

**Seasonality** – Seasonal variation of various factors – such as disease, sources of food and the agricultural cycle – that affect nutritional status.

**Severe acute malnutrition** – A result of recent (short-term) deficiency of protein, energy, and minerals
and vitamins leading to loss of body fats and muscle tissues. Acute malnutrition presents with wasting (low weight-for-height) and/or the presence of oedema (i.e., retention of water in body tissues). Defined for children aged 6–60 months, as a weight-for-height below – 3 standard deviations from the median weight-for-height for the standard reference population or a mid-upper arm circumference of less than 115 mm or the presence of nutritional oedema or marasmic-kwashiorkor.

**Stunting** – Technically defined as below minus 2 standard deviations from median height-for-age of a reference population. See Chronic malnutrition.

**Supplementary feeding programme** – There are two types of supplementary feeding programmes. Blanket supplementary feeding programmes target a food supplement to all members of a specified at-risk group, regardless of whether they have moderate acute malnutrition or not. Targeted supplementary feeding programmes provide nutritional support to individuals with moderate acute malnutrition. To be effective, targeted supplementary feeding programmes should always be implemented when there is sufficient food supply or an adequate general ration for the general population, while blanket supplementary feeding programmes are often implemented when general food distribution for the household has yet to be established or is inadequate for the level of food security in the population. The supplementary ration is meant to be additional to, and not a substitute for, the general ration.

**Supplementation (micronutrient)** – Provision of micronutrients via a tablet, capsule, syrup or powder.

**Therapeutic paste** – A generic term referring to lipid-based products used in the treatment of severe acute malnutrition.

**Undernutrition** – An insufficient intake and/or inadequate absorption of energy, protein or micronutrients that in turn leads to nutritional deficiency.

**Underweight** – Wasting or stunting or a combination of both, measured through the weight-for-age nutritional index.

**VCDC** – To overcome malnutrition in the State (Maharashtra), the government has undertaken various initiatives; Village Child Development Centre (VCDC) is one of these initiatives undertaken by the government. In the VCDC, the AWW conducts feeding sessions for 30 days providing three additional meals apart from the routine supplementary nutrition programme (SNP). Antibiotics and micronutrients are given under the supervision of the health department. The VCDC opens for 6 hours a day and is supervised by MO and ICDS Supervisor. From these centres, the AWW identifies undernourished children with medical complications based on weight for age. At the same time, height measurements and wasting criteria are certified by health officers before referral to a health facility. Now the VCDCs are replaced with energy-dense nutritious food.

**Vulnerability** – The characteristics of a person or group in terms of their capacity to anticipate, cope with, resist and recover from the impact of a natural (or human-made) hazard.

**Wasting** – Technically defined as below minus 2 standard deviations from median weight-for-height of a reference population. See Acute malnutrition.

**Weight-for-age** – Nutritional index, a measure of underweight (or wasting and stunting combined).

**Weight-for-height** – Nutritional index, a measure of acute malnutrition or wasting.

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1UNICEF Nutrition Glossary, A resource for communicators April 2012
The Tribal Development Department of Maharashtra and the Nutrition Rights Coalition led by SATHI are to be heartily congratulated for undertaking the pilot for Community action for Nutrition in 420 villages/habitations from ten tribal blocks of Maharashtra. It is further heartening to note that this pilot displays a cost-effective participatory approach with a high degree of effectiveness for improving nutritional services in underserved tribal areas with significant positive outcomes for child nutrition. Given these findings, as a part of the nutrition action community in India, one can only hope that the government will make the investments to take these benefits to scale in all the tribal areas in Maharashtra, which would contribute significantly to desired policy directions for the entire country through the demonstration of trust in community-based approaches.

— Dr. Vandana Prasad
The CAN Process in the Junnar Block in Pune district is successfully combating malnutrition with its vigorous and household-level work. People are becoming more aware of the importance of nutrition. Similar initiatives should be implemented in tribal ashram schools as well.

— Ms. Nandini Awade | Joint Director, Tribal Research and Training Institute, Pune

The civil society sector should play a vital role in assessing whether people are receiving entitlements from the government's nutrition program and should help ensure its effective implementation. Certainly, if the suggestions are realistic and within the framework of government rules, we will implement them. Currently, the CAN process is definitely contributing well to reducing malnutrition.

— Mr. Dattatraya Mundhe | Deputy Chief Executive Officer, Women and Child Development Officer, Zilla Parishad Pune

A baby corner (bal kopara) for children is a very innovative and useful concept. A 'baby corner' should be set up in every child's home in the entire taluka. The 10% Gram Panchayat fund should be reserved for this initiative. This will help in preventing malnutrition. The CAN project has played an important role in implementing a baby corner.

— Mr. Sharad Chandra Mali | Block Development Officer, Panchayat Samiti, Junnar

The CAN process is doing commendable work. The CAN brings together civil society and government efforts to combat malnutrition. CAN facilitated participation of local organisations and the community helped our efforts to reduce malnutrition.

— Mr. Haribhau Hake | Child Development Project Officer, Women and Child Dept, Junnar

Some parents may not be willing to admit their children to Nutrition Rehabilitation Centers located in urban areas. Making such arrangements at the local level will result in a positive response and benefit severely malnourished children. Getting mothers to include local legumes, nachani, varai, and pulses in their diet will also reduce malnutrition at home. Importantly, that's exactly what the CAN process has focused on.

— Mrs. Vijaya Aher | Dietitian, Nutrition Rehabilitation Center, District Hospital, Aundh

The number of children and mothers attending Anganwadi centers has increased since the launch of Amrut Aahar Yojana. People ask the Anganwadi worker about eggs for the children. The CAN project is working hard with the government to improve the nutritional status of children. Field facilitators of the CAN project follow up the implementation of Amrut Aahar Yojana and distribution of funds. It also encourages us to work.

— Smt. Archana Shelke | Amrut Aahar Yojana, Extension Officer, Zilla Parishad, Pune
As a member of the National Council for POSHAN Abhiyan (National Nutrition Mission), I travel frequently to various parts of the country to review innovative nutrition related initiatives. During my visit to Pune on 10th August, 2019, I had the opportunity to interact with SATHI and the civil society network involved in the implementation of the Community Action for Nutrition (CAN) project, supported by the Tribal Development Department (TDD), Government of Maharashtra. It was quite informative to hear about the range of activities being implemented in collaboration with the Anganwadis and the Health Services, in various project areas. I was deeply impressed with the community participation and mobilization that has resulted from this process.

A CAN process, in my opinion, is quite complementary to the National Nutrition Mission, particularly its convergence, community mobilization (Jan Andolan), capacity building, and innovation components.

— Padma Shri Dr. Chandrakant S. Pandav
Member, National Council for India Nutritional Challenges, National Nutrition Mission, New Delhi