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HARNESSING POWER OF WOMEN COLLECTIVES TO PROMOTE WOMEN'S NUTRITION IN TRIBAL BASTAR, KORAPUT AND WEST SINGHBHUM

A Scoping Study

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SUMMARY

INTRODUCTION

Stunting in children is a measure of chronic undernutrition. A stunted child is significantly less tall than would be expected for his or her age. Childhood stunting is the most prevalent form of undernutrition in India and most severe in tribal population.

Stunting in children, mostly happens in the foetal stage and first 24 months after birth. Improving women's nutrition in pre-pregnancy and pregnancy can reduce stunting significantly. The irony is that mechanisms to deliver the essential nutrition interventions for women do exist but are managed by multiple departments, with weak coordinations.

One delivery platform untapped to reach out to preconception and pregnant women with special package of reproductive, health and nutrition messages as well as services is community collectives.Community engagement in improving last mile delivery of health and nutrition interventions has been researched and valued, but has largely remained honorary work. This study assesses feasibility of community collectives as a funded stakeholder (partner) for improved delivery of essential women's nutrition interventions in tribal pockets/hamlets with high prevalence of stunting

METHODS

Geographic scope of the study was three tribal dominant districts- Bastar (Chhattisgarh), Koraput (Odisha) and West Singhbhum (Jharkhand).The study conducted between July 2014 to March 2015, had an exploratory and an assessment phase, both involving a mix of research methodologies. The exploratory phase included a situation assessment of women's nutrition status and mapping of community collectives in these districts. The assessment phase included institutional and programme capacity assessment of "matured" collectives and stakeholder's experiences and perceptions on partnering with community collectives for improving delivery of essential nutrition interventions. Community collectives were defined as village-based institutions of 8 to 10 members also referred to as tier 1, which may or may not be federated at higher administrative levels such as blocks. Federated collectives are referred to as tier 2 or tier 3 depending on composition.

The criteria for "maturity" assessment varied with the tier of community collective, including duration of operations and regularity of savings at tier 1 and loan disbursement and support to tier 1 for higher tier collectives.

RESULTS

Understanding of women's nutrition status was marred by lack of data. Limited targeting of pre-pregnancy period and delay in registration of pregnant women were some of the weak links in improving women's nutrition in these districts. Women were exposed to known socio-demographic and environmental factors associated with undernutrition and had limited access to most of the essential nutrition services. Tetanus Toxoid vaccination and incentivised services such as financial assistance for institutional delivery were better utilised. Women in these districts faced all three threats- too early, too many and too soon, pregnancies and were at high risk of parasitic infections leading to malaria.

Government and Non-Government Organisations promote community collectives in all three districts, government being the major stakeholder. Among the 18 different types of collectives mapped, Self Help Groups (SHGs) and their federations emerged as the most promising community collectives to partner for delivery of essential nutrition interventions due to their vast network, social cohesion, bank linkage, regular interface through weekly or monthly meetings and political commitment to SHG movement through National Rural Livelihood Mission. As membership was exclusively for women, nearly 400,000 women or 20% of women in the three districts could be reached through the mapped SHGs. National Rural Livelihood Mission was the leading promoter of SHGs in Bastar and West Singhbhum and amongst the top three promoters in Koraput. Koraput had a legacy of SHG programmes with Departments of Tribal Welfare and Women and Child Development initiatives operational since 2001. It also did better than

the other two districts with respect to number of federated SHGs. Over 90% of SHGs in Koraput and 62% SHGs in West Singhbhum had active bank accounts and were receiving loans. These SHGs had organisational readiness for receiving and managing grants for income generation activities and community development activities.

Very few of the selected "matured" SHGs and their federations, referred to as Village Organisations at tier 2 and Block Level Federations at tier 3 under National Rural Livelihood Mission, had experience in managing funds for linking income generation activities with improving access to essential nutrition interventions and this platform was largely untapped. However, most SHGs and Village Organizations had been involved in advancing social and development causes such as improving access to drinking water and sanitation facilities and Public Distribution System. Some were also monitoring implementation of Integrated Child Development Services. Village Organizations, the link between SHGs and local administrative authorities were considered formal pressure groups and more effective advocates for social development. Village Organizations and Block Level Federations in West Singhbhum also had mechanisms for safeguarding members from domestic violence and exploitation, which was critical in their context of limited decision making authority within the households.

The Department of Tribal Welfare's, Integrated Tribal Development Agency was functioning as the focal point for integrated tribal development programmes in Koraput. The Integrated Tribal Development Agency had not been as active and had not aligned to its philosophy of holistic tribal development yet in the other two districts.

DISCUSSION

Large scale district level nutrition surveys are deficient in measuring women's nutrition status. Disaggregated data on women's nutrition is necessary through periodic surveys for prioritising convergent nutrition interventions across the various departments. Despite relaxation in norms for health and Integrated Child Development Services coverage, tribal population is left out of service net. All national schemes that are aimed at universal coverage need to be reviewed with a tribal lens as improvements in national averages on women's and children's nutrition status are contingent on reaching out to the most vulnerable communities.

"Matured" SHGs can become grantees for strengthening last mile delivery of essential interventions, provided they are capacitated, supervised and provided safeguards against exploitation and violence. The Village Organizations are already performing these roles in the study districts. The SHG weekly meeting can serve as a community interface for discussing and resolving local issues impeding access to services. Provisions in Integrated Child Development Services, National Health Mission and Swachh Bharat Abhiyaan can be linked with National Rural Livelihood Mission's SHG promotion initiative to link income generation activity with improved service access. Lessons from Koraput can be useful to Bastar and West Singhbhum and their respective states to tap their available resources and strengthen Integrated Tribal Development Agency for holistic development of tribal populations. These lessons may also provide insights for strengthening National Rural Livelihood Mission management. The Integrated Tribal Development Agency and National Rural Livelihood Mission can be the anchor of an advocacy strategy positioning SHGs and their federations as effective partners in strengthening last mile delivery of essential nutrition interventions.

CONCLUSION

A model on strengthening last mile delivery of essential nutrition interventions with Village Organizations as grant managers and "matured" SHGs as grantees should be piloted for advocating increased engagement of SHGs in service delivery. Concomitant efforts to address systemic issues impeding reach of services in tribal regions and strengthening existing institutional/government structures such as Integrated Tribal Development Agency are needed.

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REPORT

INTRODUCTION

Stunting in children affects an estimated165 million children globally and along with other forms of undernutrition contributes to upto 45% under-five deaths[1]. Stunting in children is a measure of chronic undernutrition, with irreversible, profound and lifelong consequences. A stunted child is significantly less tall than would be expected for his or her age. Stunting contributes to one third of under-five deaths globally, and adversely affects a child's health, cognitive capacity, school performance and productivity in adulthood. It is the most prevalent form of undernutrition in India; around one third of the world's stunted children live in India[3]. The World Health Organisation has called for global action to reduce the proportion of children who are stunted by 40% by 2025[4]. There is substantial scientific consensus on determinants, consequences and proven interventions to address child undernutrition[5] (Figure 1); but the challenge is to translate this understanding to effective strategies which reach the most marginalised population.

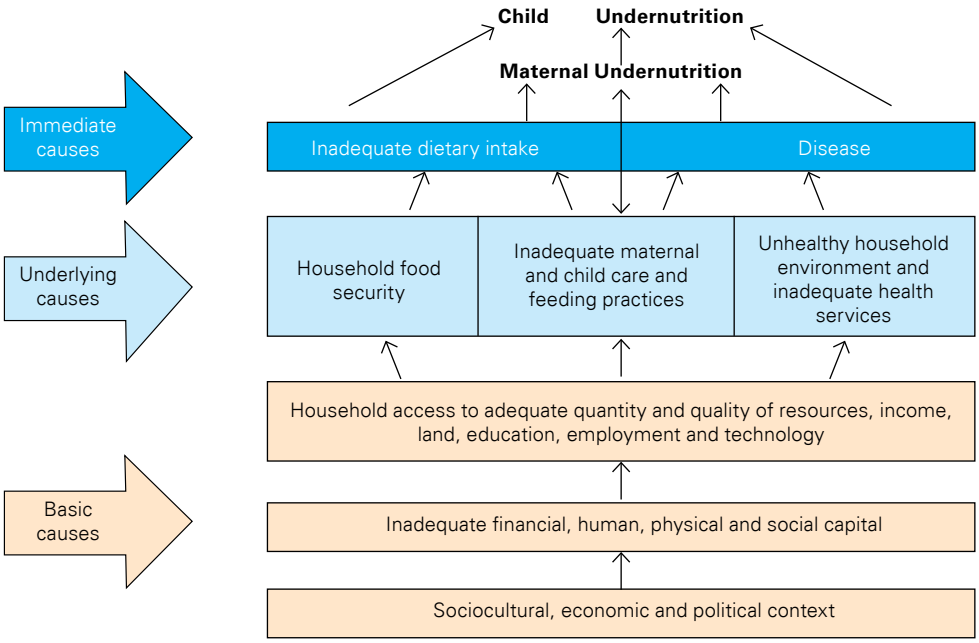
Around 22% of growth faltering in young Indian children has already happened at birth, and the remainder is largely completed by 24 months[6,7]. Current strategies to prevent childhood stunting focus on pregnancy and the first two years of children's lives, or the '1000 days' period[8]; recognising that substantial impact requires preventive action even before the first 1000 days of life. Such action should support adequate nutrition in early adolescence, prevent early pregnancies, improve access to clean water and sanitation to reduce environmental gastroenteropathy, support household food security and promote women's empowerment[9,10,11,12].

Re-analysis of National Family and Health Survey, India, reveals prevalence of stunting is highest among children of Scheduled Tribe (ST) communities; every second child in the tribal community is stunted opposed to about one in three non tribal Indian children[13]. Household poverty and maternal undernutrition emerged as key determinants of stunting in tribal children. It is becoming increasingly clear that for a significant reduction in prevalence of child stunting, improving women's nutrition before and during pregnancy is imperative. It is recommended to link child nutrition interventions with maternal nutrition interventions and poverty alleviation programmes[13]. There is global and national consensus on recommended nutrition interventions before, during and between pregnancies[14,15,16]. These five essential nutrition interventions include:

(1) improving the quantity of household food consumed and its nutrient quality
(2) preventing and managing micronutrient deficiencies and anaemia
(3) increasing women's access to health services and special care for 'most vulnerable'
(4) increasing women's access to water and sanitation education and commodities
(5) preventing too early, too many and too close pregnancies. (Table 1)

The primary accountability for delivery of these services is of the government although many development partners, Non-government Organizations (NGOs), faith based agencies and private sector stakeholders are also involved in improving reach and utilisation of these services. The Ministry of Health and Family Welfare through National Health Mission and the Ministry of Women and Child Development through the Integrated Child Development Services scheme have been central to delivery of most of the listed interventions. Under the National Food Security Act, the Ministry of Food and Civil Supplies, through Public Distribution System is critical for provision of subsidised rations to 75% of rural household country-wide. Tribal dominant areas due to hilly terrain, limited cultivable land, rain-fed agriculture, isolation and poverty are special focus of this Act[17]. The Ministry of Drinking Water and Sanitation is responsible for providing all households with drinking water and access to toilets. Through its newly launched Swachh Bharat Abhiyaan, the Ministry has heavily subsidised and incentivised toilet construction at household

Figure 1: Conceptual framework on determinants of child stunting



and community level[18]. Initiatives for economic empowerment of women and families to break the intergenerational transmission of poverty are made possible through the National Rural Livelihood Mission- Aajeevika and the Mahatma Gandhi National Rural Employment Guarantee Act implemented through the Ministry of Rural Development. In addition, there is a dedicated Ministry of Tribal Affairs, which supports Integrated Tribal Development Agency at state level through budget for tribal development referred to as the Tribal Sub-Plan.

The government acknowledges that convergence of all these ministries has been a persistent challenge and tribal population has not fully benefitted from the available schemes[19]. While systemic issues and convergent action need to be addressed by the government, there is possibility of improving the last mile delivery of existing services with community ownership. Evidence from randomised controlled trials within and outside India suggests that using "women groups" as platforms for promoting health interventions is a feasible approach in low resource settings, provided requisites such as high quality facilitators for establishing and maintaining the group, high coverage of intervention, sufficient time for implementation of the intervention, concomitant supply strengthening interventions and appropriate safeguards against harms such as conflict with service providers and domestic violence are met [20,21,22,23,24]. Keeping in view the undisputed role of income poverty in the aetiology of stunting, recommendations of integrating poverty alleviation in nutrition programmes and government's increased interest in promoting community collectives involved in thrift and credit through the National Rural Livelihood Mission, such collectives could serve as a platform for improving reach and use of essential nutrition interventions[1,13].

Experiences of working with SHGs

Global and national programme experiences in involving community collectives exist, but unlike controlled trials there are limitations in testing effectiveness of these programmes. Nonetheless they offer lessons in taking nutrition and health intervention to scale with the community collectives and some are backed by rigorous impact evaluations.

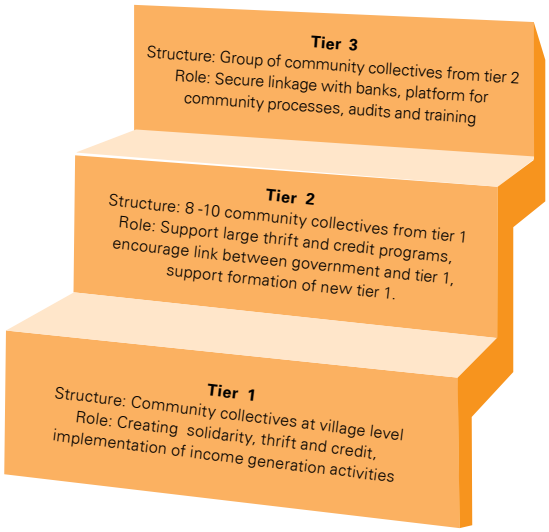
Members of community collectives have been mostly engaged for promoting recommended health and nutrition behaviours as honorary workers. Nutrition promotion, despite being

a resource intensive activity, has not been regarded as a service and livelihood option. Consequently, most programmes commit no service cost or offer minimal incentives for this activity making it unsustainable after programme termination. However, there are some examples where community collectives have been partnered with, in equal capacity as a grantee and fund manager for delivering services and promoting health and nutrition behaviours in underserved communities. Notable global programmes include Community Conditional Transfer programme in Indonesia, livelihood and food security programmes in Bangladesh (Shouhardo, Jibaon-o-Jibika) and Nepal (Suaahara)[25,26,27,28]. A summary of these programmes is presented in Table 2.

Illustrative examples of India's experience in involving SHGs as grantees for improved health and nutrition outcomes for communities include- Kudumbashree (Kerala), Society for Elimination of Rural Poverty Project (Andhra Pradesh and Telangana), Self Employed Women's Association- rural (various states), Community Health Care Management Initiative (by CARE in West Bengal), Jamkhed model (Maharashtra) and urban health models by Urban Health Resource Centre and Mahila Abhivrudhi Society, Andhra Pradesh. Each one of these experiences builds on SHG and bank linkage with government or NGO as a promoting agency. Invariably in all these programmes, women's groups have been trained on promotion of the health and nutrition interventions, the scope and duration of training varying with the type of programme. An NGO, promoting agency or federated structure provided capacity building and supervisory support. Most programmes included interventions for health system strengthening along with the community intervention[29,30,31,32,33]. SHGs have been instrumental in operationalising government schemes, e.g. managing crèches or fulwaris and Integrated Child Development Services schemes in Andhra Pradesh, Chhattisgarh and Madhya Pradesh[34,35].

However, quality and sustainability of SHGs has been a challenge even when the most experienced NGO partners have been involved in their promotion. The most vulnerable population such as seasonal wage labourers, families with uncertain incomes and those difficult to persuade for regular savings have been invariably excluded from SHGs[36,37].

Figure 2: Classification of collectives according to structural tiers



In order to address this challenge, one recommended strategy is to have a tiered structure for SHGs starting at the village level that is tier 1, followed by federations at block and district levels, namely tier 2 (referred to as Village Organizations under National Rural Livelihood Mission) and tier 3, respectively (figure 2). A federated structure increases SHGs bargaining capacity, benefits from economies of scale and provides buffer for market changes. As a federation is a legal entity, formal linkages with external stakeholders like manufacturers are feasible.

Objectives

To assess the feasibility of community collectives as funded stakeholders (partners) in improving last mile delivery of the five essential nutrition interventions in regions with high levels of child stunting, a study in three tribal dominant districts was designed with the following objectives:

1. profile women's nutritional status and factors affecting it
2. map organised community collectives and their promoting institutions

3. document programmes community collectives are engaged in and their linkage with government programmes as relevant to essential nutrition interventions
4. assess programme and institutional capacity of selected community collectives to serve as a robust vehicle for promotion of essential nutrition interventions
5. identify barriers, facilitators and potential programme options for engaging organised community collectives from the perspective of government, NGO representatives, community collectives themselves and communities.

METHODS

Three tribal dominant districts, one each from tribal dominant states of Chhattisgarh, Jharkhand and Odisha were selected namely, Bastar, West Singhbhum and Koraput, respectively. These bordering districts had limited service reach, active promoting agencies for community collectives[#] and had been priority for government and UNICEF programmes. The study duration was eight months from July 2014 to March 2015, with four months for data collection from July to November 2014. Under technical supervision of UNICEF two independent research organisations were contracted to undertake the study- Ekjut for West Singhbhum and iMentor Development Services Private Limited for Bastar and Koraput.

Design: This study was designed with two distinct phases- exploratory and assessment. The exploratory phase, aimed at garnering evidence for the first three objectives, involved both secondary review and primary research. The assessment phase was entirely primary research aimed at meeting information requirements for objectives four and five.

Exploratory phase

Sampling: The primary research component covered all government agencies and NGOs promoting community collectives within the district, identified through government sources and discussions with local experts in tribal development programmes. The process for mapping of NGOs serving as promoting agencies for community collectives is illustrated in figure 3

The total number of mapped promoting agencies both government and NGOs were 17, 28 and 33 in Bastar, Koraput and West Singhbhum, respectively.

Data collection: The desk review including secondary data analysis was conducted by an experienced data analyst in each team. All available data sources with district level data on demography, health and nutrition status, services and behaviours were identified through previous experience, snowballing through published literate and review of websites and latest publications of relevant government departments and development agencies. Estimates have mostly been reported from Census 2011, Annual Health Survey 2012-13, District Level Household Survey 3, and HUNGaMA survey. Where estimates for the same indicator were available from more than one survey, the most recent source was used preferentially.

The second aspect of exploration which was, mapping of community collectives through identified promoting agencies, was guided by a mapping tool which aimed at garnering information on types, numbers, purpose and functionality of various community collectives. Inquiry included:

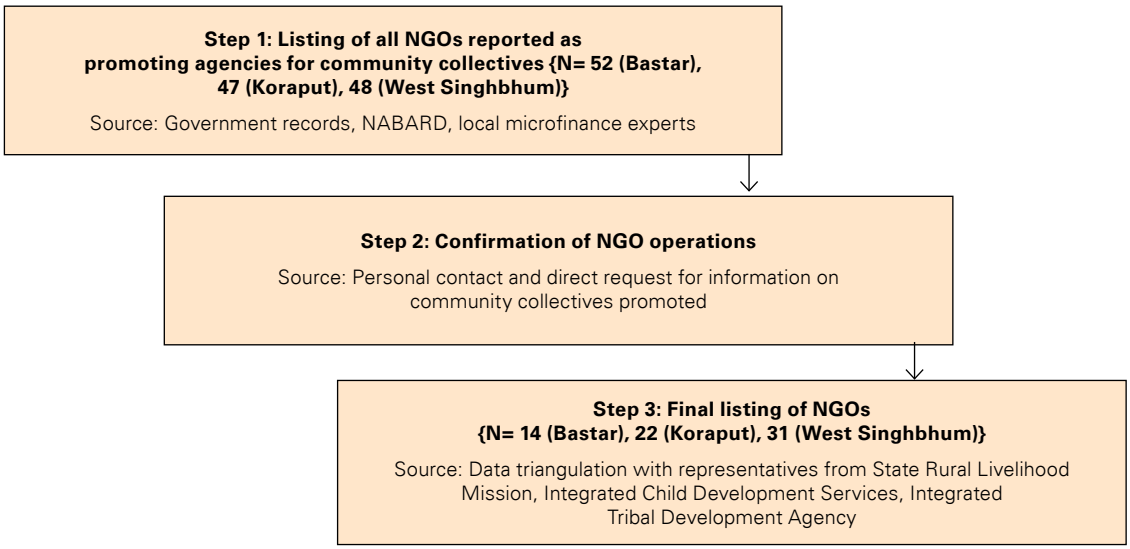
1. How many months/ years had the collective been functional?
2. Whether the collectives had a meeting in last six months, and if so what was the attendance?
3. How many collectives had bank accounts?
4. How many collectives had bank linkage?
5. How many collectives had taken loans/ grants, etc?
6. How many were federated to higher levels, that is, tier 2 and 3?

The tool was administered electronically and information confirmed telephonically. Validation of reported information was attempted through third party discussions, mostly with government officials at block level to ascertain current operational status of the reported collectives.

Data analysis: A complete list of indicators for secondary analysis was developed. MS Excel 2010 was used for secondary data analysis. Descriptive analysis was undertaken for the

[#] For the purpose of the study, a community collective was defined as- "Any village-based institution, of village folk, which has been organised into a group with a minimum of 8-10 members, is or not aggregated into a collection of such groups/ members as higher tiers; the members being primarily women or in mixed groups with men and holding periodic meetings for specific action oriented functions, may or may not pertaining to thrift and credit."

Figure 3: Process for mapping NGOs serving as promoting agencies for community collectives



mapping exercise with detailed presentation on types and characteristics of collectives. The coding and quantification of the qualitative data was done using MS Excel 2010.

Assessment phase

Sampling: The assessment phase required inclusion of "matured" community collectives who could form the most productive sample to garner information on current capacity and potential for strengthening delivery of essential nutrition interventions. Only tier 1 and tier 2 were considered for sampling as federated structure was still a new concept and it was unlikely to find many collectives at tier 3. The inclusion criteria for a "matured" community collective for tier 1 included:

- operational for atleast one year,
- having regular meetings as per protocol with 70% to 80% members' participation
- inclusive inter-loaning and regular repayments
- receiving revolving funds/ credit through banks
- involved in income generation activities and
- experience in addressing social issues

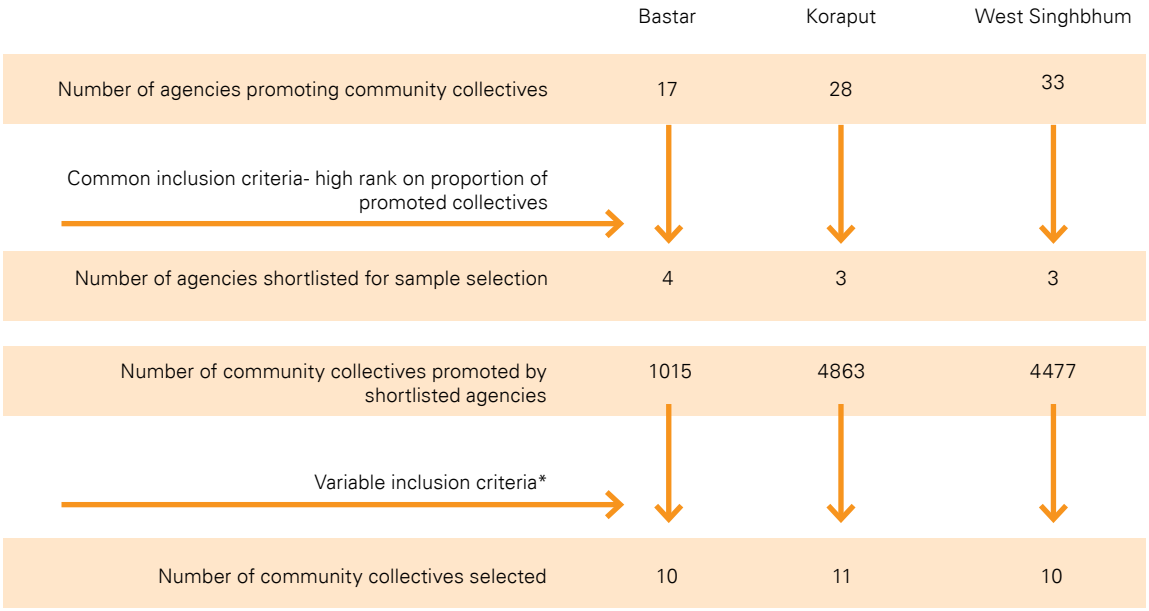
The inclusion criteria for tier 2 community collectives included:

- hold regular meeting of representatives
- hold general body meetings with all tier 1 members
- may have loans and regular repayments being done
- supporting tier 1 in thrift and credit or any other activity
- preferably, have addressed any social cause effectively
- may be a registered body

Of the 17, 28 and 33 agencies promoting community collectives in Bastar, Koraput and West Singhbhum, 4, 3 and 3 agencies were shortlisted respectively, based on high rankings on proportion of collectives promoted in the district to the total number of collectives. Using the number of collectives promoted by these shortlisted agencies as the denominator 10, 11 and 10 "matured" collectives were purposively selected in Bastar, Koraput and West Singhbhum through consultative approach. A purposive sampling was deemed appropriate as it was most likely to identify experience and information rich collectives. A deviation in the inclusion criteria was consideration of only federated collectives for sample selection in West Singhbhum opposed to separate selection of collectives at tier 1 and tier 2 in other two districts. The sampling procedure is illustrated in figure 4. All selected collectives were covered in the study.

In addition, community demand, facilitators and barriers for women's health and nutrition enhancement and perspectives on involving

Figure 4: Sampling procedures for selecting community collectives for capacity assessment



*Tier 1 and 2 collectives selected separately in Bastar and Koraput, while only collectives federated at tier 2 considered for sampling in West Singhbhum.

community collectives in social issues was assessed through one to two community Focus Group Discussions and interviews with key officials at district and sub-district level. A purposive approach was adopted to gain in-sights from a group of adolescent girls, reproductive age women and older women, who were not necessarily involved with community collectives and frontline workers such as Accredited Social Health Activist (ASHA) and Anganwadi Worker (AWW). The key officials interviewed included district and block level officials of State Rural Livelihood Mission, Integrated Tribal Development Agency and representatives from NGOs.

Data collection: Five different sets of tools were developed, field tested and standardised for use across three districts. A tool for capacity assessment of community collectives was developed after review of existing indicators and tools for such assessments. The tool administered as a group interview aimed at assessing leadership, savings and credit, financial management, microenterprise development, networking and linkages, conflict management, knowledge of development issues particularly women's health and nutrition, plans and vision with particular reference to undertaking essential nutrition interventions. A similar tool with inclusion of inquiries on relationship between tiers of collectives was administered with tier 2 collectives. The remaining two tools were open ended probes and guidelines for Focus Group Discussions and interviews with communities, government and NGO representatives.Two personnel with experience in field research, understanding of the local context and dialects undertook the primary data collection in each district. The interviews and Focus Group Discussions were transcribed word-by-word. Non-verbal cues and any observations on group dynamics were noted. Representatives from UNICEF undertook field visits for data quality assurance.

Data analysis: Data collection and analysis was simultaneous in the assessment phase to have better in-sight for future rounds of interviews and discussions. Interpretation of transcriptions involved filtering individual views and experiences from group's shared views or experiences, actual versus hypothetical experiences and evaluation of attitudes attached to the responses. Information was grouped and coded to generate summary of response along

with enlisting exceptional or deviant responses. MS Excel 2010 was used for coding and summarisation of findings.

Study limitations

This study aimed at gaining in-sight on feasibility of community collectives in strengthening last mile delivery of essential nutrition interventions in the tribal dominant districts of Bastar, Koraput and West Singhbhum. The generalisability of the findings was limited due to its qualitative design. However, the design with the inclusion of better performing collectives, presented the "best case scenario". Secondly, the capacity assessment was qualitative and was unlikely to serve as a baseline for any future intervention involving community collectives in this region. This would require an objective assessment and grading of their capacity as relevant for the intervention.

Information on mapping of promoting agencies and the community collectives was mostly verbatim with no direct sources for validation of data. However, as all relevant government and NGO representatives were involved in the process it was unlikely that any major stakeholders had been left-out.

Using the group interview approach for the assessment may have prevented some of the members from expressing their views to maintain solidarity with the group. An attempt was made to overcome this limitation by reporting every deviant voice and any non-verbal cue that reflected disagreement with responses.

RESULTS

Socio-demographic profile of the study districts

The total population ranges from 1.3 million to 1.5 million across the study districts. All three districts are rich in natural resources, have dense forest cover and are home to various tribes or adivasis. Agriculture is the main occupation, with reliance on traditional, rain-fed farming techniques. In 2012, Bastar district was divided to form two new districts, Bastar and Kondagaon. The socio-demographic profile of the study districts is presented in Table 3.

The population is exposed to the known socio-demographic determinants of stunting. Tribal population, constitute 66%, 51% and 67% of the total population of Bastar, Koraput and West Singhbhum, respectively[1,2] opposed to national average of about 9%[39]. Adult literacy, defined as ability to read and write in any language is 66% in Bastar, 50% in Koraput and 59% in West Singhbhum opposed to national average of 74%. Female literacy is abysmally low as compared to average adult literacy for these districts – for instance it is only 24.3% in Koraput (data not included in Table 3). At birth for every 1,000 boys there are 930 girls in Bastar, 911 in Koraput and 983 in West Singhbhum[40]. A skewed sex ratio as seen in Bastar and Koraput, poses a threat to girls achieving their physical, intellectual, economic and reproductive potential. Finally, the average family size ranges from 4 to 5 in these districts. Children of higher birth order are at increased risk of being severely stunted compared to first born children[13].

Nutritional status of women in study districts

District level data on women's height and Body Mass Index is unavailable through large scale surveys. Data on anaemia in pregnancy dates back to 2002, District Level Household Survey 2 survey (figure 5). Almost all pregnant women are mild to moderately anaemic in the study districts. As the cut-offs for classification of anaemia have changed since 2011, more women are likely to be in moderate and severe anaemia categories than reported in this survey[41].

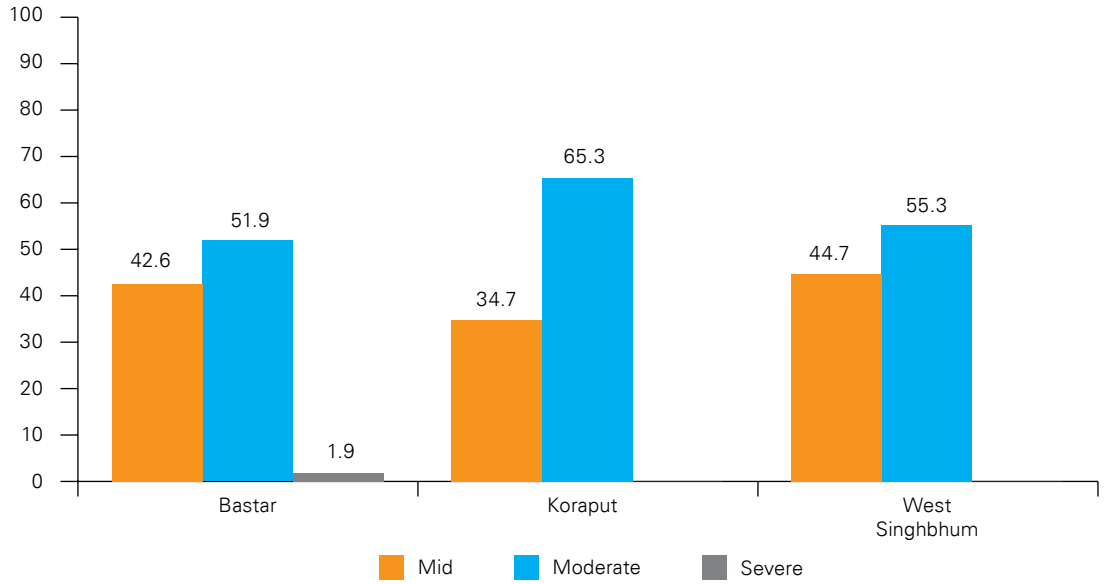
Coverage of the five essential nutrition interventions in study districts

Measuring coverage of intervention 1, improved food and nutrient intake (both in quantity and quality), requires measurement of access to:1) generalised household food ration through Public Distribution System, 2) fortified supplementary food through Integrated Child Development Services and 3) information on local diet diversity and production, preventing food adulteration and entitlements. Only 45% of villages in Koraput have Public Distribution System coverage. West Singhbhum does better with 81% of the villages having access to Public Distribution System. Only 42% and 61% of rural households use Public Distribution System in Koraput and West Singhbhum, respectively[42]. Bastar has not been included in this survey (Table 4). Non-availability of ration cards is cited as a reason for inability to avail Public Distribution System services in all study districts. AWCs (AWCs), or the village centre that delivers services under Integrated Child Development Services, exist in all villages in Koraput and West Singhbhum. However, this does not imply that all services, including fortified supplementary food reach eligible population. Irregularity of food distribution and the poor quality of supplementary food have been reported in Focus Group Discussions.

"I give sattu (supplementary food received from Integrated Child Development Services to goats, as it is too salty for us to consume...." - (Focus Group Discussion participant, Chakhardharpur Block, West Singhbhum).

The second essential nutrition intervention on prevention of micronutrient deficiency and anaemia, is measured by consumption of Iron Folic Acid tablets for at least 100 days by pregnant women, calcium supplementation and deworming as per protocol, consumption of iodised salt and incidence of parasitic infections like malaria. Consumption of Iron Folic Acid tablets for at least 100 days by pregnant women has been very low, ranging from 18.3% in West Singhbhum to 27% in Bastar. The most

Figure 5: Prevalence of mild, moderate and severe anaemia in pregnant women across study districts



Sources: District Level Household Survey 2 (No recent source for prevalence of anaemia in pregnancy at district level).

commonly cited reason for non-consumption of Iron Folic Acid tablets by pregnant women in the selected villages is unavailability of the tablets. Annual Parasite Incidence or number of confirmed cases of malaria per 1000 population is greater than 10 in all study districts (Table 4).

The third essential nutrition intervention pertains to access to basic health care services and specialised care services for at-risk population, covering the entire period of pregnancy and post-partum. Only half the pregnant women have been registered within the first trimester in Koraput. The situation is worse in the other two districts with timely registration as low as 28% in Bastar and 35% in West Singhbhum. Late registration for Ante natal care also reflects delay in registration for Integrated Child Development Services and coming under the ambit of food supplementation, nutrition and health counselling, preparedness for delivery and other services. Despite delays in registration, Tetanus Toxoid vaccination services have nearly 100% reach in Koraput and close to 90% in other two districts. Koraput does better in reach of at least three ANC check-ups with three-fourths of the pregnant women receiving this service, opposed to about 70% in Bastar and over 60% in West Singhbhum.

Institutional deliveries range from 38.5% in West Singhbhum to 67.1% in Bastar. Post natal check-ups within 48 hours of delivery are available to more women than those who deliver in an institution as service coverage ranges from 53.9% to 77.2% across study districts. Financial assistance for institutional delivery has been utilised by over 90% of women who delivered in a government or private institution in the previous year in both Bastar and Koraput. Usage of this financial benefit has been limited in West Singhbhum, as about 60% of the mothers reported availing the benefit (Source: Annual Health Survey 2012-13, not included in Table 4).

Less than 60% of households have access to drinking water in West Singhbhum. The situation is slightly better in Bastar and Koraput with 78% and 74% households reportedly having access to drinking water. Hand washing practices are inappropriate as almost all women in West Singhbhum and 90% of women in Koraput reported not washing hands before preparing a meal. Inappropriate hand washing at critical times is associated with increased risk of diarrhoea and respiratory infections[44]. Access to toilets is abysmally low ranging from 12% to 20% across study districts.

Women in these districts face all three threats- too early, too many and too soon, pregnancies. Nearly half the women aged 20 to 24 years, have been married before the age of 18 in Koraput. Correspondingly, 45% women in Bastar and 39% women in West Singhbhum have been married before the legal age of 18 years. Focus Group Discussion respondents indicated that girls are married young to ensure their security and settle dowry demands at the earliest. Nearly all women in Koraput and over 80% women in West Singhbhum have responded negatively on having any decision making power about household purchases (data not included in Table 4)[42]. Findings from Focus Group Discussions in West Singhbhum indicate that decision on family size and use of family planning methods is driven by men.

"Even after 6 children my husband wants one more child." -(Focus Group Discussion participant- Tantnagar block, West Singhbhum). In West Singhbhum over 40% women aged 20 to 24 years have at least three children; corresponding figures in Koraput and Bastar are 35% and 18%, respectively. Use of modern family planning methods is nearly 50% in Bastar and little over 30% in other two districts.

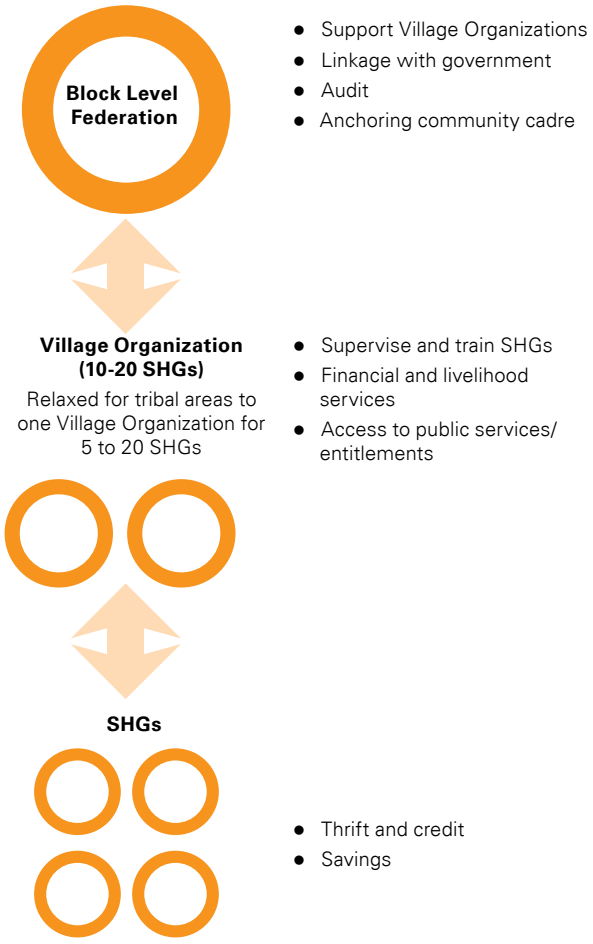
Government programmes engaging community collectives

Various ministries have been promoting community collectives in the study districts (Table 5).

National Rural Livelihood Mission: The National Rural Livelihood Mission is the most recent initiative through which community collectives are being promoted, capacitated and monitored for both livelihood and social development. A federated structure is promoted through this mission involving SHGs at tier 1, Village Organizations at tier 2 and Block Level Federations at tier 3 (figure 6).

All National Rural Livelihood Mission compliant SHGs are required to adhere to *Panchsutras* or five canons of democratic functioning, that is, (i) regular conduct of weekly meetings, (ii) member attendance at meetings, (iii) regular subscription of savings by members, (iv) inter-lending of SHG funds and (v) up to date bookkeeping. The management units at state, district and block

Figure 6: Federated structure and roles of different tiers under National Rural Livelihood Mission



level provide supervisory and capacity building support to Block Level Federations, SHGs and Village Organizations. Table 6 provides positions filled and attrition rates at the State, District and Block Mission Management Units[45]. There is provision for a Community Resource Person, an individual who has successfully overcome poverty as an SHG member and is trained to support new SHGs in the development phase.

Integrated Tribal Development Agency: The Integrated Tribal Development Agency is the focal agency for holistic development of tribal population through its range of livelihood, education, infrastructure development and rights protection activities. Funds for Integrated Tribal Development Agency are drawn from central government sponsored special central assistance scheme to the Tribal Sub-plan. Across the three study districts, the Integrated Tribal Development Agency is at different levels of organisational development. In West Singhbhum, the Integrated Tribal Development

Agency covers all 18 blocks and is in start-up phase. The positions of the Integrated Tribal Development Agency management team have been sanctioned but recruitment has not been initiated. Some activities pertaining to infrastructure development including construction of roads, check-dams and residential schools, technical and vocational training in local dialects and nutritional support to at-risk population have been undertaken. In Bastar, the Integrated Tribal Development Agency covers all seven blocks and is primarily involved in disbursement of funds to individual beneficiaries through the line departments of agriculture, fisheries, horticulture and forests among others. The Integrated Tribal Development Agency of Koraput is most evolved and implements Odisha Tribal Empowerment and Livelihood Programme as a holistic approach to tribal development including increasing access to land, water and forests, monitoring the basic food entitlements as well as promotion of local enterprise through SHGs and their federations[46]. Integrated Tribal Development Agency has two sub-divisions in Koraput namely- Koraput with nine blocks and Jeypore covering five blocks. Like Bastar, Integrated Tribal Development Agency in Koraput also disburses funds to line departments but to SHGs through systematic bank linkages rather than to individuals.

Mission Shakti: The state government of Odisha, through the Department of Women and Child Development has been promoting SHGs through its flagship programme - Mission Shakti since 2001. Mission Shakti has a diversified capacity building plan with members trained on business enterprises they initiate as well as socially relevant issues[47].

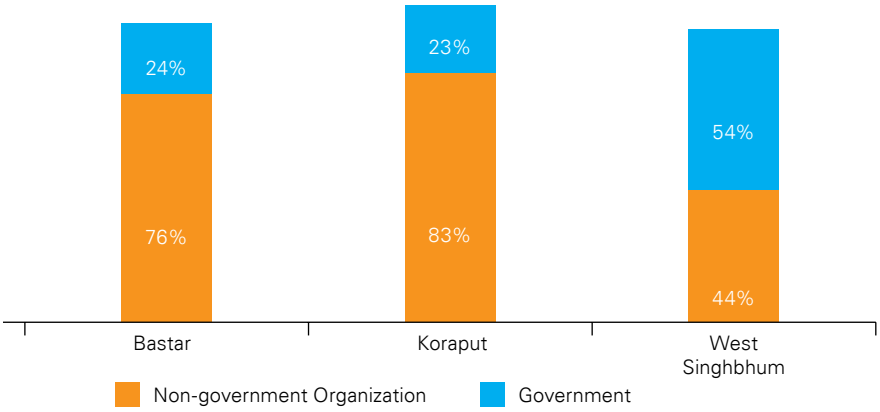
Other programmes: NABARD is the pioneer of SHG movement in the country, with the launch of its SHG-bank linkage programme dating back to 1982. It is actively involved in micro-credit activities in all three districts. Department of Women and Child Development has engaged women collectives in monitoring of AWC services and preparation of hot cooked meals varyingly in all three districts. Through the National Health Mission, Village Health and Sanitation Committeess or Village Health, Sanitation and Nutrition Committees have been receiving flexi-funds for health promotion and related activities at village level. Committees have been constituted at block, district and state level as well with the mandate of undertaking activities that are not under planned budget for National Health Mission. SHGs have also been involved in management of Public Distribution System; but they are not priority partners as gram panchayats and Large Area Multipurpose Societies, aimed at financial self-sufficiency for tribal women, are given precedence. The school committees under the Sarv Sikhsha Abhiyaan, are primarily focused on financing school enrolment and retention needs for children from underserved households.

Profile of community collectives

Based on the mapping of community collectives through 17, 28 and 33 promoting agencies in Bastar, Koraput and West Singhbhum respectively, upto 18 different types of collectives exist. Six types of community collectives are common across study districts (Table 7). Among the six, SHGs are the only collective to have exclusive women membership and a federated structure. It also has the maximum penetration with membership ranging from 68,332 to 205,171 across the three districts. Village Education Committees have 40 to 50 thousand members. Other groups have smaller membership, with the exception of Watershed Committees in Koraput; it has the second highest penetration in the district with 86,567 members. Other than these six collectives, Youth Clubs have been reported in both Bastar and West Singhbhum. All other collectives are exclusive to each district, for instance, Baal panchayats in Bastar and adolescent girls and boys groups in West Singhbhum.

In both Bastar and Koraput, government agencies are predominant promoters of SHGs and their federations - 4,708 of 6,226 in Bastar and 14,241 of the 18,448 in Koraput are promoted by government. In West Singhbhum, government promoted SHGs form a smaller proportion at 44% (3200 of 7239). Figure 7 provides the distribution pattern for SHGs promoted by government versus NGOs across the three study districts. A detailed list of SHG promoters in the three study districts, with the numbers of SHGs promoted and their structural tiers is available in Table 8, 9 and 10. Government

Figure 7: Distribution of SHGs based on promoting agency in study districts
(n= 6,226 Bastar, 18,448 Koraput, 7,239 West Singhbhum)



led SHGs are directly under the ambit of income generation schemes and have a more stable foundation for entrepreneurship as government can offer more buffer in case of business losses.

In Bastar and West Singhbhum National Rural Livelihood Mission has emerged as the main government initiative for promotion of SHGs. In Koraput, about 11,963 SHGs have been mapped under Mission Shakti. National Rural Livelihood Mission as a promoter of SHGs ranks third in Koraput among government promoted schemes.

Organisational and programme capacity of SHGs

Federated structure: The distribution of SHGs based on the structural tiers is presented in figure 8. As evident most collectives are tier 1. The number of tier 2 collectives is low however a significant number of tier 1 collectives are federated to form these tier 2 collectives. For example, 44% of tier 1 SHGs are federated to tier 2 in West Singhbhum.

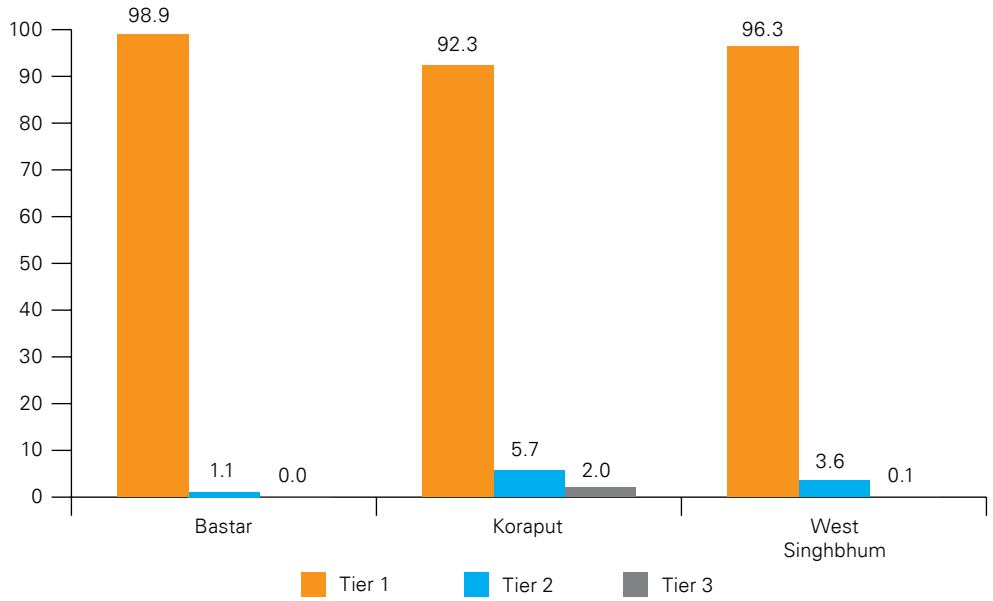
Social inclusion: The proportion of tribal membership is 44% in Bastar, 51% in Koraput and 67% in West Singhbhum among selected "mature" 10, 11 and 10 SHGs in Bastar, Koraput and West Singhbhum. Proportion of members who can read and write is highest in West Singhbhum at 43%. Less than a quarter of the members can read and write in the other two districts.

Leadership: Leadership in SHG comprises the President, Secretary and Treasurer elected by the group members. With the exception of few SHGs, norms for election and/ or rotation of leadership are not specified and members are not aware of the process in all three districts. Among the selected "matured collectives" members do not voice the need to change leadership unless probed through leading questions. Reasons cited for unwillingness to change leadership include acceptance and satisfaction with performance of current leadership, tenure not completed, tedious process for changing bank signatories and unawareness of the process for changing leadership. One SHG each in Bastar and West Singhbhum has reported changing leadership due to need for literate members in leadership positions and death of a leader. In some cases members consider leadership most informed on decision making and rely on their judgement on all business related issues, without much debate or discussion. Contrary to this, in few cases male members have taken over the management of SHG's enterprise though leadership on paper constituted the original women members.

Financial management: The primary activity of all mapped SHGs across all study districts is thrift and credit which requires active bank accounts. Koraput has the maximum number of SHGs with active bank accounts (94%), followed by West Singhbhum (62%) and Bastar (41%).

SHG members are expected to meet and save regularly as per norms set by the members. Mostly, SHGs promoted under the National Rural Livelihood Mission meet weekly while others meet monthly. Regularity of savings and meetings was consistently high across study districts. The fact that most SHGs have

Figure 8: Distribution of SHGs based on the structural tiers
(n= 6,226 Bastar, 18,448 Koraput, 7,239 West Singhbhum)



financial penalties for absenteeism could have a bearing on high participation rates. Few SHGs also reported fines for unpunctuality. All SHG members had individual passbooks which were mostly kept with the members. Cash deposits and withdrawals were mostly performed by all members on rotation barring a few exceptions where only leadership or only literate members were involved in the process. Financial capacity is limited to thrift and credit as there is no assessment of profits, reinvestments and profit sharing across all selected SHGs.

Microenterprise development: The philosophy behind SHG development is to encourage business entrepreneurship at the village level. However, this is a weak area for most SHGs as very few are involved in group Income Generation Activity. The type of business that SHGs have been involved with include, managing Public Distribution System, preparation of hot cooked meals for AWCs, animal husbandry and fisheries.

Networking and linkages: Invariably all selected SHGs have networked with banks for opening and operationalising their accounts and with SHG promoting agencies for technical assistance. In addition many SHGs have networked with various government departments like District Rural Development Authority, Department of Women and Child Development and with the panchayats for development works in the village. Mostly, all members participate in meeting with external stakeholders with few exceptions where only leaders were involved in external meetings.

Conflict management: Most selected "mature" SHGs have reported no history of conflict which resounds with their spirit of solidarity. A few have quoted non-repayment of loans by members as a reason for conflict but have provided no responses on formal process for resolving conflicts.

Vision and plan: In order to become a sustainable and progressive entity, SHGs need to have a unified vision and plan. None of the selected SHGs have a vision or a long term plan for increasing SHG operations and group Income Generation Activity. The idea of savings is more individual need oriented rather than enterprise oriented. However, members did share a lot of aspirations and ideas, on activities that they could undertake as a collective. Some illustrative examples include poultry, pisciculture, spice packaging as well as management and/or monitoring of government schemes like Public Distribution System and Integrated Child Development Services.

Capacity of higher order (tier 2) community collectives

In this study, tier 2 collectives are all under National Rural Livelihood Mission. The Village Organization representatives are President and Secretary of the SHGs who are generally more vocal, active and literate members. Village

Organizations meet monthly and a general body meeting of all SHGs members is organised every two months. There is a financial penalty for absence but other members can be nominated to attend if the President or Secretary cannot attend. Village Organization is not a savings group; it collects one time registration fee from each SHG member that is used to create a corpus. The Village Organizations sanction loans upto Rupees 60,000 referred to as Community Investment Fund, based on review of micro credit plans of the SHGs. This process creates an interface of SHGs and Village Organizations and sets accountability on either side. SHGs pay monthly installments of Rupees 1,000 and 1% interest to the Village Organization, thus, funds are rotated and income is generated through interest for Village Organizations.

The Village Organizations provide monitoring and supervisory support to SHGs as a shared responsibility of Village Organization members.

They are trained on micro credit planning, book keeping, organisation of general body meeting and leadership. Selected members have been trained to become Community Resource Persons by external agencies providing capacity building support through National Rural Livelihood Mission. Village Organization's role is not limited to overseeing the activities of SHGs. They have been involved in liaisoning with government agencies for village development activities.

One Village Organization in Bastar has successfully liaisoned with district administration for installation of a water tank for piped drinking water facility in the village, filed 36 applications for the sanction of toilets and rallied for issuance of Public Distribution System ration cards to several families. Another Village Organization has initiated monitoring visits to AWC.

Social causes addressed by community collectives

Most selected SHGs have been involved in initiatives such as action against domestic violence, campaigning for closure of liquor sale units as well as advocating for environment and hygiene issues like access to drinking water and toilets. Members of tier 2 collectives or Village Organizations were reportedly more networked and involved in rights based advocacy with government agencies especially for access to piped drinking water supply, issuing ration cards and monitoring of AWCs as mentioned earlier. They are also more active members of Gram Sabhas and encourage members from linked SHGs to also participate in local politics and administration. Some Village Organizations in West Singhbhum have initiated a letter system, whereby members of SHGs or any village resident can raise a social concern in writing with the Village Organization. The Village Organization validates the information, assesses its own capacity to address the issue and takes action where valid and feasible.

Community collectives' understanding of women's nutrition issues

Other than income generation activities with Integrated Child Development Services and Public Distribution System, these selected "mature" SHGs have no direct experience of working on women's health and nutrition issues; neither did any members report being trained on such themes in the past. Most members have reported the need to improve diet during pregnancy but could not translate it into practical recommendations for diet improvement. They are also able to associate children's poor nutritional status to mother's health and nutrition status. Awareness of health and nutrition entitlements ranges from none to knowledge of schemes, service providers and service delivery centres for availing these services. There is variable understanding about iron deficiency and Iron Folic Acid tablets. Very few members are aware about iodisation of salt and reasons for consuming iodised salt. Most members are informed of the Janani Suraksha Yojana scheme and as individuals have been involved in encouraging utilisation of the scheme. They also articulate the need for empowering women to become co-decision makers with their spouse on family size and other matters.

Specifically on promotion of essential nutrition interventions, selected SHGs state the possibility of 1) increasing food security by developing grain banks and homestead farming for nutritionally rich foods, 2) improving community and health centre linkages by liaisoning with health and other service providers, 3) conducting social audits of Integrated Child Development

Services and health services, 4) prioritising households with pregnant women and lactating mothers for construction of toilets and other development activities and 5) increasing awareness on women's health and nutrition issues through the SHG meetings. One or two SHGs could not identify themselves undertaking any related activities due to lack of authority and training.

Perceptions of stakeholders in engaging community collectives as a stakeholder in promotion of essential nutrition interventions

Strengths and opportunities- Almost all stakeholders recognise that SHGs are a critical platform for reaching out to the women. They also believe that SHG members can be more sensitive to communities especially women's needs as they experience the challenges themselves and have a forum to discuss and address these challenges. Further, they are more likely to understand and assess vulnerability, prioritise households requiring assistance and reduce left-outs. SHG members are considered action-oriented, focused and reliable due to their disciplined and regular savings and meetings. Stakeholders suggest a range of activities that SHGs can undertake, most of which are aligned with the ideas shared by SHGs themselves. These include, developing grain banks, animal husbandry, promoting sustainable agriculture practices and monitoring of government schemes among others. It is also suggested that SHG members be involved with nutrition and health education, but this will require building SHG members' capacity to become effective educators.

Stakeholders view Village Organizations as more powerful structures to undertake social and development causes; this also emerged from the capacity assessment mentioned earlier.

Barriers- Stakeholders identify barriers at three levels- SHGs themselves, the community and environment they operate in and the support structures available to them. At the SHG level, stakeholders reinforce that SHGs are not well defined entities with respect to norms, maintenance of records is a challenge and they cannot challenge local political and administrative units. Their technical capacity for undertaking development work such as promotion of essential nutrition interventions is considered limited. The stakeholders opined that SHGs are not networked with frontline workers and service providers from other line departments. Some stakeholders express concern on SHGs membership not being homogenous with respect to power and authority, that is, some SHG members may be influential and more controlling of the group. It is the stakeholders' view that the immediate environment of the SHGs is dominated by gram panchayats and this hegemony determines SHGs operations.

There are cultural barriers to promotion of essential nutrition interventions as discussed under the section on coverage of essential nutrition interventions. Finally, the stakeholders opine that the support structures for the SHGs, that is the federations, Integrated Tribal Development Agency and district and block units of State Rural Livelihood Mission have not fully evolved to become support pillars for the SHGs. However, federations are evolving rapidly in the National Rural Livelihood Mission priority areas.

DISCUSSION

Large scale surveys are deficient in measuring and making disaggregated data on women's nutrition status available for policy dialogue and programme development

Indicators relevant to assessing women's nutrition, such as prevalence of undernutrition and anaemia, particularly in pre-pregnancy period are not included in large scale district-level health and nutrition surveys. As the focus of health and nutrition programmes has largely been child-centric, it is unsurprising that nutrition status of adolescent girls and women remains unmeasured and thereby neglected in policy and programme development. As women in the tribal dominant study districts are chronically undernourished and anaemic, for long term gains in saving and improving the quality of mothers and children's lives, nutrition interventions are necessary in these districts. UNICEF has pioneered availability of data on women's nutrition in tribal areas[13]. Such socio-economic disaggregated data on women's nutrition is necessary through periodic surveys for prioritising convergent nutrition interventions across the various departments that are involved with tribal development, livelihood, health and nutrition.

Reach of evidence based essential nutrition interventions is limited in study districts where women are exposed to known socio-demographic and environmental determinants of stunting

The limited coverage of the essential nutrition interventions is a result of both supply and demand side barriers. Government has relaxed population coverage norms for both Integrated Child Development Services and health infrastructure for tribal areas. Recommendation is to have an AWC for 400 to 800 people in rural areas and one for 300 to 800 people in tribal areas. Similarly, a sub-centre, (basic health services delivery point) is expected to cover 5,000 population in rural areas and 3,000 in tribal areas. A Primary Health Centre, which is managed by a Medical Officer is expected to cater to 30,000 rural population opposed to 20,000 in tribal areas. However, meeting these norms has been challenging in both Jharkhand and Odisha as evident from Rural Health Statistics of 2013-14[48]. There is a shortfall of 404 sub-centres and 246 Primary Health Centres in tribal areas of Jharkhand and 309 sub-centres and 23 Primary Health Centres in tribal areas of Odisha. Chhattisgarh has met population norms for health infrastructure in tribal belt. However, Chhattisgarh has a huge skilled human resource shortage with 219 of 365 (60%) Medical Officer positions vacant in Primary Health Centres. Situation is as bad in Jharkhand with 205 of 426 (48%) Medical Officer positions vacant. All three study districts have been priority intervention districts for National Rural Health Mission as well as ongoing Reproductive, Maternal, Neonatal and Child Health plus Adolescents programme. This implies that budget for infrastructure development and recruiting staff should not be a deterrent in these districts.

All national schemes that are aimed at universal coverage need to be reviewed with a tribal lens as improvements in national averages on women's and children's health and nutrition indicators are contingent on reaching out to the most vulnerable communities. Review of pregnancy vaccination coverage and Janani Suraksha Yojana scheme may provide lessons on reaching out to tribal population as most women availing institutional delivery services have benefitted from this scheme.

Depleting forest cover, loss of land and entitlements make tribals most vulnerable to hunger and deprivation. Implementation of the National Food Security Act needs to be reviewed and reasons for lack of reach of Public Distribution System and Integrated Child Development Services addressed as priority. Access to sanitation facilities is excruciatingly low in the study districts with over 80% of households not having access to toilets. Under the Swachh Bharat Abhiyan, construction and use of toilets has been incentivised for Below Poverty Line households for the first time. In addition toilet construction is also included under Mahatma Gandhi National Rural Employment Guarantee Scheme scope.

In addition to the supply side barriers, Focus Group Discussions revealed that care practices during pregnancy, perinatal and post-natal period were divergent from the recommended due to limited information on appropriate practices, cultural beliefs and limited involvement of women in decision making. Over 90% of mothers in Koraput and 88% mothers in West Singhbhum had never heard the term malnutrition[42]. Women need a collective force to voice their concerns and be an equal partner in the household; concomitantly men need to be sensitised to the need for joint decision making, health and nutrition needs of women.

SHGs and their federations have the potential to strengthen last mile delivery of essential nutrition services

Amongst all collectives mapped, SHGs provide a platform for reaching the maximum number of like minded, enterprising women, that is, nearly 400,000 in the three study districts. This coincides to approximately 20% of the total female population of about 2.2 million in these three districts, of which over 50% are from tribal communities. Evaluations of SHG programmes, with government or NGOs as promoting agencies of the SHG, have consistently reported improvement in economic status of members, level of improvement being contingent on original level of poverty and governance structures in the state or district[49,50,51,52,53]. Evidence from re-analysis of third round of District Level Household Survey indicates that women from villages with SHGs are more likely to use health facilities for maternal and delivery care, are better informed and more likely to use family planning methods, that those from villages without SHGs[54]. Sampled SHGs were cohesive, representative of the castes and tribes of the hamlet and met regularly every week providing a possible interface for discussing and resolving local challenges in implementation of essential nutrition interventions. The self-diagnosis of reasons for limited reach of essential nutrition services by SHGs is likely to improve targeting of interventions as they are most informed of local challenges.

In Koraput, government has a structured tribal welfare and development programme and has been involved in SHG promotion for a longer duration than in Bastar and West Singhbhum. Koraput has more than double the number of mapped SHGs compared to the other two districts. Sustained implementation of National Rural Livelihood Mission in convergence with Integrated Tribal Development Agency can result in increasing the number of SHGs in these districts and reaching the National Rural Livelihood Mission target of enrolling at least one woman from all rural/tribal households in SHGs. However, research studies indicate that SHG membership alone, without other interventions, like supply strengthening, nutrition and health education amongst others, is not associated with better health and nutrition outcomes[55,56].

Systems for establishing SHGs as partners in promotion and delivery of essential nutrition interventions are in place

Over 90% of the SHGs in Koraput and 62% in West Singhbhum have active bank accounts and have been receiving loans and Community Investment Fund. These SHGs from being a network of women involved in thrift and credit are ready to evolve into an organisation with defined operations in business enterprise and social development. This graduation is currently happening with SHGs federating to tier 2 organisations across the study districts. Long term planning and sustainability of the SHGs should be the core intervention for embedding other interventions in this network. The National Rural Livelihood Mission, through its decade long plan of investing in local capacity development including identification and training of local resource persons or Community Resource Persons, grading of SHGs based on compliance of the Panchsutras and promotion of a federated structure is strengthening the organisational structure and financial viability of the SHGs. Also, National Rural Livelihood Mission has social development as one of its core strategies, thus, programmes on essential nutrition interventions can be embedded in its capacity building mandate.

However, the National Rural Livelihood Mission management structures need to be strengthened in all three states. Based on averages for Chhattisgarh, Jharkhand and

Odisha, all three states need to improve staff recruitment and retention rates at district and block level. Lessons from the long standing SHG promotion schemes namely Mission Shakti and Odisha Tribal Empowerment and Livelihood Programme should be brought forward to inform National Rural Livelihood Mission approaches in Odisha.

Promotion, delivery and management of essential nutrition interventions can be a business enterprise along with social action

There are a number of business opportunities for SHGs, both aspirational and tested, that need to be explored and detailed keeping in view the tribal and larger needs of the markets. These range from management and monitoring of Integrated Child Development Services and Public Distribution System schemes to homestead farming. The task of identifying viable options needs to be done through a consultative process involving SHGs, Village Organizations, gram panchayats, government representatives as well as experts who can provide insights to the production, marketing and distribution processes. There is a possibility of building such consultations in State Rural Livelihood Mission annual plans with the Block Mission Management Unit or SHG promoting agencies being the facilitators. Among these possibilities, it is understandable to prioritise the ones which are likely to give high financial returns and require minimal skill building investment, but keeping in view the state of deprivation and undernutrition, particularly stunting in these districts, enterprises likely to increase coverage of essential nutrition interventions along with income generation should be given equal weightage. NABARD funds a series of government supported schemes related to dairy entrepreneurship and livestock management which are tested on marketing feasibility and should have more potential for success.

One of the tested business strategies which links enterprise with improved food security is the involvement of SHGs in preparation of hot cooked meals[36,37]. This is also one of the few group income generation activity reported in the study. Linking SHG members to AWCs increases opportunities for SHG members to be exposed to nutrition education and counselling; convergence with AWWs can improve delivery of services such as early identification and enrolment of pregnant women, antenatal care, planning for institutional deliveries and family planning. Another business enterprise which has potential of linking income generation activity to improved nutrition is construction of toilets through the Swachh Bharat Abhiyan; this is reportedly being done through Mahatma Gandhi National Rural Employment Guarantee Scheme in these districts. Improving access to sanitation facilities is a common concern of SHGs across the study districts. Since, some SHGs are involved in activities that link essential nutrition interventions with income generation activity, members from all SHGs with potential to undertake such income generation activitys should be brought together to a common forum to exchange ideas and share challenges and opportunities.

Similar to the global and local programmes where community collectives have been provided grants through Community Conditional Transfer and other methods, Village Organizations as an influential link between SHGs and the local administration, larger geographic scope and acceptance as a formal pressure group can design and manage grants to SHGs for promotion and delivery of essential nutrition interventions. Keeping in view that SHG members have limited literacy and are from communities where women have limited decision making authority, safeguards need to be in place for protecting them from domestic violence, exploitation as well as conflicts with local authorities. Village Organizations and Block Level Federations are providing this support to SHG members in West Singhbhum.

Integrated Tribal Development Agency is the point of convergence for tribal development, health and nutrition interventions

In Bastar and West Singhbhum, the opportunity to promote and strengthen SHGs through Integrated Tribal Development Agency

is unutilised. Koraput has demonstrated Integrated Tribal Development Agency's role as a convergence agency. Lessons from Odisha Tribal Empowerment and Livelihood Programme can be useful to these districts and their respective states to tap their available resources for holistic development of tribal populations. Along with strengthening the SHGs, there needs to be an advocacy strategy targeting government departments, development partners and communities, to proliferate understanding on their strengths and potential in becoming a key stakeholder in improving last mile delivery of essential nutrition interventions. The Integrated Tribal Development Agency and National Rural Livelihood Mission can be the anchor of this advocacy strategy, bringing evidence from implementation of SHG programmes.

CONCLUSION

The study presents the unrelenting state of chronic undernutrition in the three tribal dominant districts of Bastar, Koraput and West Singhbhum. The current nutrition status of women is abysmally poor though not completely understood due to lack of data. The physical, social and financial environment is largely unfavourable for improving nutrition outcomes. In this situation, the presence of women collectives in these districts offers a potential solution to address the underlying cause of undernutrition that is, poverty, along with the empowering women as analyzers, decision makers and educators on essential nutrition interventions.

Within the current supportive policy and programme framework, the numbers and membership of SHGs across the study districts should be increased. National Rural Livelihood Mission's decade long capacity development and sustainability plan and focus on social development along with income generation activities should be used for SHGs and Village Organizations to grow and increase involvement in improving household access to essential nutrition interventions. Lessons from long running SHG promotion programmes namely Mission Shakti and Odisha Tribal Empowerment and Livelihood Programme, should be synthesised for strengthening National Rural Livelihood Mission management. SHGs are at different levels of organisational evolution in the study districts. Through National Rural Livelihood Mission, a grading of SHGs and their federations is available, which should be used to assess readiness of these groups to become grantees for promotion and delivery of essential nutrition interventions.

Findings from this study suggest that, with capacity building and supervisory support, "matured" SHGs can develop plans and receive grants to strengthen last mile delivery of essential nutrition interventions. Village Organizations or tier 2 collectives should be equipped with technical know-how on essential nutrition interventions to model income generation activity linked community development work through their vast network of SHGs. This scientifically developed, evaluated and documented model should be used to advocate for convergent action with other line departments and prioritising SHGs and their federations as the vehicle for promotion and delivery of essential nutrition interventions. Ministry of Health and Family Welfare, Ministry of Women and Child Development and Ministry of Drinking Water and Sanitation are three potential ministries that should be targeted for engaging SHGs in improving food and nutrition security and access to health and sanitation facilities at village level. Ministry of Tribal Affairs should review the Integrated Tribal Development Agencies and streamline the annual planning processes, operational strategies and monitoring mechanisms to establish Integrated Tribal Development Agency as a convergence focal point for tribal development activities.

In order to achieve full impact of SHG led interventions, it is critical that concomitant efforts are made to improve reach of all public health and nutrition services. Study reveals gaps in reach of health and nutrition services but also indicates the better reach of Tetanus Toxoid vaccination and incentivised service such as financial assistance for institutional deliveries which should be reviewed to understand drivers for service utilisation. In order to monitor and evaluate the effectiveness of the essential nutrition interventions in reducing undernutriton, including stunting, both women's and children's nutrition outcome indicators need to be included in large scale district level surveys.

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TABLES

Table 1: Essential nutrition interventions pre-conception, during pregnancy and lactation

Interventions	Life cycle stage		
	Pre-conception	Pregnancy	Lactation
Essential intervention 1: Improved food and nutrient intake (both in quantity and quality)			
1.Access to generalised household food ration (Public Distribution System)	√	√	√
2. Access to fortified supplementary foods – Integrated Child Development Services		√	√
3. Access to knowledge on local diet diversity and production, preventing food adulteration and entitlements	√	√	√
Essential Intervention 2: Prevent micronutrient deficiencies and anaemia			
4 Iron folic acid supplementation, as per protocol	√	√	√
5. Universal use of iodised salt	√	√	√
6. Calcium Supplementation and Deworming, as per protocol		√	√
7. Access to information for prevention and treatment of malaria and Fluorosis	√	√	√
8. Access to knowledge to stop using alcohol and tobacco products during pregnancy		√	
Essential intervention 3: Improving access to basic health services and special care for most vulnerable			
9. Early registration for inclusion in outreach services	√	√	
10. Recording and monitoring of nutritional status (pre-pregnancy weight, Pregnancy weight gain monitoring)		√	
11. Quality and full reproductive health, antenatal and postnatal checkup incl. Screening and special care of "most vulnerable" (anemic, low BMI/MUAC, low pre-pregnancy weight, maternal stunting, low pregnancy weight gain, malaria, Fluorosis)	√	√	√
12. Promotion of Institutional delivery	√	√	√
Essential intervention 4: Improving hygiene and sanitation practices and access to safe drinking water			
13. Sanitation and hygiene education (including menstrual hygiene)	√	√	√
14. Access to low-cost/contextualised safe drinking water and improved sanitation facilities	√	√	√
Essential intervention 5: Preventing pregnancies too early, too many and too soon			
15. Delaying age at first pregnancy beyond 19 years through counselling, access through FP methods	√		
16. Delaying repeated pregnancies through counselling and access through FP methods	√	√	√
17. Promoting community support system by ensuring male and family participation	√	√	√

Table 2: Summary of global programmes where community collectives are funded partners for health service promotion and delivery

S. No.	Name (Country)	Technical scope	Target group	Outreach	Cost	Problems	Strategy adopted	Interventions	Outcome	Challenge
1	Suaahara (Nepal)	Maternal and child health WASH Home - based gardening	Pregnant and lactating women Children (≤ 2Years)	20 districts (Cluster offices in Kathmandu, Biratnagar, Pokhara, Dhangadi and a sub-cluster office in Butwal)	USD 46 million (2011-2016)	Care dimensions (Poor feeding and care-related behaviours) Health dimensions (Lack of hygiene and sanitation, lack of potable water, high prevalence of infections) Food dimensions (Inadequate food availability, access, affordability, quality, and nutrient density)	Focus on "1000 days" window Behaviour change communication Support for micronutrient supplementation Integration of health, nutrition, agriculture and food security	Essential Nutrition Actions Essential Hygiene Actions Homestead food production Strengthen health services – Detect and treat SAM	262,567 pregnant women, lactating mothers and mothers of children under two reached 16,530 Health volunteers trained in Integrated Nutrition Program 20 Village Development Committees declared open defecation free zones 61644 mothers and group members trained in homestead food production 192,525 beneficiaries with access to home or community gardens	Nutrition a non priority area for non-health sector Scale up and improvement in coverage of WASH interventions Lack of master trainers Difficulty in achieving nutrition outcomes through agriculture interventions in short term

S. No.	Name (Country)	Technical scope	Target group	Outreach	Cost	Problems	Strategy adopted	Interventions	Outcome	Challenge
2	Shouhardo (Bangladesh)	Women's empowerment Maternal and child health Sanitation Homestead food production	Extremely poor households	2,342 villages and slums (400,000 households in 18 of the poorest and hardest to reach areas)	USD 126 million (2004 to 2010)	Fluctuations in crop production related to climatic conditions and natural disasters Food insecurity and lack of access to balanced and diverse diet Lack of non food based strategies to address nutrition problems Provision of treatment for SAM children	Reach poorest households Rights-based livelihoods approach focussing on better agriculture productivity Promoting women empowerment as a transformative strategy against poverty	Maternal and child nutrition –promotion of food ration to target group Sanitation Poverty and food insecurity alleviation Women's empowerment Disaster mitigation and response	Stunting levels decreased by 4% even during cyclone and food price spikes caused by global grain shortage Average incomes more than doubled as women saved money forming associations	Lack of clarity regarding administrative procedures for village development committees Inconsistent approach to institutional learning Limited analysis of the programmatic impact of community action plan Sustainability of village development committees

S. No.	Name (Country)	Technical scope	Target group	Outreach	Cost	Problems	Strategy adopted	Interventions	Outcome	Challenge
3	Jibon-o-Jibika (Bangladesh)	Health and nutrition Sanitation	Poor households Pregnant women and children ≤ 2 yrs	1 million households 5.5 million women and children	USD 20 million (2004 to 2009, extended 2012)	Food insecurity Malnutrition and micronutrient deficiencies Increased food prices leading to overall poverty	Promoting home stead farming Supporting MCHN and WASH practices Improved local and community preparedness for emergencies	Promoting homestead food productions Using Community-Integrated Management of Childhood Illnesses(C-IMCI) framework for better Maternal, Child Health and Nutrition Using WATSAN to increase access to safe water and sanitation	More households practicing HFP Reduction in severely underweight by 27.6%, exceeding the goal by 17.6% Reduced incidence of diarrhoea in children under 2 by 20% Anaemia prevalence (non pregnant mothers of children aged 12-59 months) decreased by 12% in Bangladesh Improved awareness of population about hand washing and use of toilet	Groups on which home stead farming was focussed were not chronically food insecure Establishing effectiveness of the Village Model Farmer approach Lack of behaviour change for use of latrine and hand washing Severe staff and resource constraint in first three years of project

S. No.	Name (Country)	Technical scope	Target group	Outreach	Cost	Problems	Strategy adopted	Interventions	Outcome	Challenge
4	Programme *Generasi Sehat dan Cerdas* (Indonesia)	Conditional cash transfers to communities accessing specific health and education services	Pregnant women Postnatal women Children (≤5years)	33 Provinces 169 Districts 2001 Sub-districts 25032 Sub-villages	USD 902 million (2007-2012)	Poverty and inequality Poor health and nutrition status, lack of education	Conditional cash transfer to poor households , which is received as long as expectant mothers receive pre-natal checkups, newborns and toddlers receive post-natal care and health checkups, and 6 to 18 year olds attend school	Conditional cash transfer to poor households	Increased educational achievements of poor families Created multiplier effects of transfers through self-investment Improved the health status of mother and children Reduced nutritional deficiency, inequality and poverty	Need to expand substantially to cover a significant proportion of the poor households Need to improve coordination with other poverty alleviation and social protection programmes.

Table 3: Demographic profile of Bastar, Koraput and West Singhbhum

		District	
Indicators	**Bastar***	**Koraput**	**West Singhbhum**
Population (Total)	14,13,199	13,79,647	15,02,338
Population (Male)	6,98,487	6,78,809	7,49,385
Population (Female)	7,14,712	700,838	7,52,953
Child population (0 to 6 years)	2,16,713	2,25,126	2,61,493
Population density (population per sq km)	135	156	208
Decadal growth rate	18.3	16.6	13.5
Sex ratio at birth	930	911	983
Scheduled Caste population (%)	2.7	14.2	3.8
Scheduled Tribe population (%)	66.3	50.6	67.3
Particularly Vulnerable Tribal Groups (n)	NA	NA	1823
Adult literacy (%)	66.3	49.9	58.6
Households (n)	3,10,359	3,37,677	3,02,046
Household size	4.5	4.1	5
Area (sq km)	4030	8807	7224
Blocks	7	14	18
Villages	611	1985	1792

Source: Census of India 2011
*Data for undivided district including Kondagaon except area, block and village data.

Table 4: Coverage of five essential interventions across the three study districts

	District		
Essential interventions and indicators (Sources)	**Bastar**	**Koraput**	**West Singhbhum**
1. Improved food and nutrition intake			
% villages having Public Distribution System shops (HUNGaMA survey, 2011)	NA	45	81
% rural households using Public Distribution System service (HUNGaMA survey, 2011)	NA	42	61
2. Prevent micronutrient deficiency and anaemia			
% mothers consumed Iron Folic Acid tablets at least 100 days (Annual Health Survey 2012-13)	26.7	22.1	18.3
Malaria API (National Vector Borne Disease Programme 2012)	>10	>10	>10
% Plasmodium falciparum cases - Malaria Journal 2013*, Government records (Koraput, West Singhbhum)	95.2	89.1	80.3
3. Improving access to basic health and special care for at-risk			
%pregnant women registered in the first trimester (Annual Health Survey 2012-13)	81.9	54.9	55.9
% mothers received at least one Tetanus Toxoid injection (Annual Health Survey 2012-13)	88.7	96.8	86.7
% mothers receiving at least 3 ANC check-ups (Annual Health Survey 2012-13)	69.4	74.9	61.4
% institutional delivery (Annual Health Survey 2012-13)	67.1	53.4	38.5
% women motivated for institutional deliveries by ASHAs	17.6	3.7	NA
% mothers receiving post natal check-up(within 48 hours) (Annual Health Survey 2012-13)	77.2	67.5	53.9
4. Improving hygiene and sanitation and access to safe drinking water			
% households having access to hand pump or other safe drinking water systems (Census 2011)	77.7	73.9	58.6
% households having toilets (Census 2011)	20.3	17.4	11.8
% women reporting hand washing before preparing a meal (HUNGaMA survey, 2011)	NA	10	1
5. Preventing pregnancies too early, too many and too soon			
% women aged 20 to 24 who were married at 18 years or less (Annual Health Survey 2012-13)	44.8	46.7	33.8
% women aged 20-24 reporting birth of order ≥3 (Annual Health Survey 2012-13)	18.3	35.4	41.2
% use of modern contraceptive methods (Annual Health Survey 2012-13)	48.2	33.6	32.2

*Reference endnote[43]

Table 5: Ministries and linked programmes or initiatives through which community collectives are promoted in study districts

		District		
Ministry	**Programmes/ initiative**	**Bastar**	**Koraput**	**West Singhbhum**
Ministry of Rural Development	National Rural Livelihood Mission Aajeevika	√	√	√
	Integrated Watershed Management Projects	√	√	√
Ministry of Tribal Affairs	Integrated Tribal Development Agency	-	√*	-
Ministry of Women and Child Development	Integrated Child Development Services	√	√	√
	Mission Shakti	-	√	-
Ministry of Food and Civil Supplies	Public Distribution System	√	√	√
Ministry of Finance	NABARD, SHG-Bank linkage programme, Farmers clubs	√	√	√
Ministry of Health and Family Welfare	NRHM, Village Heath and Sanitation Committees or Nutrition C	√	√	√
Ministry of Human Resource Development	Sarv Sikhsha Abhiyaan	√	√	√
Ministry of Environment, Forest and Climate Change	Forest conservation/Integrated Wildlife Management	√	√	√

*Odisha Tribal Empowerment and Livelihood Project (Odisha Tribal Empowerment and Livelihood Programme)

Table 6: Positions filled and attrition rates* at State, District and Block Mission Management Unit of the State Rural Livelihood Mission

	Positions filled and attrition rates		
	State Mission Management Unit	**District Mission Management Unit**	**Block Mission Management Unit**
Chhattisgarh	79% (15%)	55% (17%)	77% (22%)
Jharkhand	94% (4%)	75% (7%)	72% (4%)
Odisha	43% (21%)	21% (17%)	60% (NA)

Source: National Rural Livelihood Mission mid-term assessment 2015
*Figure in parenthesis is attrition rate

Table 7: Common types of community collectives, their composition, structural tiers and membership across all study districts

S. No.	Type	Composition	Tiers			Number of members		
			I	II	III	Bastar	Koraput	West Singhbhum
1	Farmer Club	Mixed	√	X	X	4,100	5,086	4,352
2	Forest Committee	Mixed	√	X	X	3,520	16,517	2,690
3	SHG	Women	√	√	√	68,332	205,171	117,558
4	Village Education Committee	Mixed	√	X	X	40,160	49,932	40,646
5	Village Health and Sanitation Committee*	Mixed	√	X	X	7,080	17,282	-
6	Watershed Committees	Mixed	√	X	X	850	86,567	4,750

*Referred to as Village Health, Sanitation and Nutrition Committees in all districts of Jharkhand

Table 8: SHG promoting agencies and block-wise distribution of SHGs promoted (Bastar)

Organisation	SHG Promoting Institution	Tiers			Operating Blocks
		Tier 1	Tier 2	Tier 3	
Government Organisation	SRLM	4409	48	0	Bastar, Darbha, Bakawad, Lohandiguda, Jagdalpur, Bastnar, Tokapal
	RDD	66	0	0	Bastar, Darbha, Bakawad
	FOREST DPTT	185	0	0	No Data
Non Government Organisation	A J R D	92	0	0	Lohandiguda, Bastar
	BASTAR SEVAK MANDAL (BSM)	169	0	0	Bakawand, Bastar, Jagdalpur, Tokapal
	MKSP (BSM)	110	0	0	Bakawand
	DEEN BANDHU SAMAJ	112	0	0	Bastar, Jagdalpur
	MAA SHARDA LOK KALA MANCH	88	0	0	Bastar, Jagdalpur
	PRADAN	294	4		Bastar, Darbha, Tokpal
	SEBA	217	0	0	Darbha, Tokpal, Jagdalpur
	SNEHAGIRI MISSIONARY SISTERS	104	14	0	Darbha, Jagdalpur
	TRIWE	26	1	0	Bastar, Tokpal, Jagdalpur
	MAHILA JAGRITI SAMITI	10	0	0	Tokpal
	PRERNA	105	0	0	Bastar, Tokpal, Jagdalpur, Darbha
	BVSS	91	1	0	Bastar, Tokpal, Jagdalpur,
	SAVISA	32	3	0	Bakawad
	CHHATTISGARH AGRICON SAMITI	45	0	0	Darbha, Tokpal
	TOTAL	**6155**	**71**	**0**	

Table 9: SHG promoting agencies and block-wise distribution of SHGs promoted (Koraput)

Organisation	SHG Promoting Institution	Tiers			Operating blocks
		Tier 1	Tier 2	Tier 3	
Government Organisation	STATE RURAL LIVELIHOOD MISSION (SRLM), DRDA, Koraput	1027	117	18	Kotpad, Boriguma, Laxmipur
	MISSION SHAKTI	11963	900	216	All 14 Blocks
Non Government Organisation	CYSD (PRAYAS)	467	4	43	Boipariguda, Kundra, Koraput, Laxmipur
	BKS	62	0	1	Boipariguda
	SATYA SAMBHU	236	0	1	Boipariguda
	COFA	73	0	6	Boipariguda
	SEARCH	345	8	4	Boipariguda,
	ADIBASI MITRA SHAKTI	65	0	1	Nandapur
	RASS	270	0	10	Bandhugaon, Nandapur
	EKTA	125	0	5	Dasamantapur, Jeypore, Koraput
	KFA	306	0	11	Lamatpur, Nandapur
	SPREAD	97	0	3	Boipariguda, Koraput
	PRAGATI	243	0	11	Koraput
	PRASTUTEE	100	0	6	Pottangi,
	SAHARA	80	0	4	Koraput
	SEDP	78	0	0	Jeypore
	SOVA	122	0	2	Koraput, Semiliguda
	WORD	164	0	1	Laxmipur, Koraput, Semiliguda
	LAVS	118	0	10	Pottangi,
	IDS	97	0	1	Dasmantpur, Laxmipur
	PRADAN	350	16	0	SEMILIGUDA, Lamatpur,
	FES	84	0	0	Koraput
	THREAD	462	0	5	BOIPARIGUDA, Laxmipur, Kundra, Pottangi, Kotpad,
	TSRD	100	0	10	Nandapur
	Total	**17034**	**1045**	**369**	

Table 10: SHG Promoting Agencies and block-wise Distribution of SHGs Promoted (West Singhbhum)

Organisation	SHG Promoting Institution	Tiers					Operating blocks
		Tier 1	Tier 2		Tier 3		
		SHG	Tier 2 Institution	Federated SHG	Tier 3 Institution	Federated SHG	
Government Organisation	National Rural Livelihood Mission-DMMU (Ministry of Rural Development)	2295	91	705	0	0	Manoharpur, Khuntpani, Goelkera
	Mahila Samakhya Programme (MRD)	907	61	907	3	223	Banghgoan, Tonto, Khuntpani, Sadar Chaibasa,Tantnagar, Manjhari, Kumardungi
Non Government Organisation	Professional Assistance for Development Action (PRADAN)	1275	76	1275	5	1275	Bandhgoan, Chakhardharpur,Tonto, Sonua, Hatgamriya
	Chauharmal Yuva Seva Sansthan	204	10	90	0	0	Jagarnathpur, Tonto, Sadar Chaibasa
	Singhbhum Gramodyog Vikas Sansthan (SGVS)	621	2	13	0	0	
	Kolhan Mahila Sangthan	406	2	85	0	0	Bandhgaon,Tonto
	Tribal Research & Training Centre (TRTC)	211	3	30	0	0	Tonto
	SHARE- Society for Human Assistance and Rural Empowerment	76	10	76	2	76	Majhgoan
	Lok Seva Kendra	50	4	28	0	0	Khuntpani, Bandhgoan, Jinkpani
	Organisation Accelerated for Social Integrity Service (OASIS)	32	2	7	0	0	Chakardharpur, Sadar Chaibasa

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