

Understanding Dietary Behaviours Among Primary Sector Worker Communities in India



This document is a summary of a larger research study commissioned by *Vitamin Angels Association India, supported by UNICEF India, and conducted by Purple Audacity.* 

Photography by Rohit Jain/Vitamin Angels The individuals photographed were not part of the sample interviewed for the study. Understanding Dietary Behaviours Among Primary Sector Worker Communities in India

# Contents

Acknowledgement	7
Abbreviations	7
I. Brief Background of the Study	9
II. Study Design and Methodology	11
III. Key Learnings Across Communities	13
IV. Key Action Points and Areas for Future Course of Action	30
V. Comparative Highlights Community-Wise	33





# Acknowledgement

Sponsor: UNICEF India

**Research partner:** 

Purple Audacity

#### Vitamin Angels non-profit partners involved in the study:

- Kandhamal Zilla Sabuja Vaidya Sangathan (KZSVS) Odisha
- Progressive Rural Active Youth's Action for Society (PRAYAS) West Bengal
- Chevalier JLP Roche Victoria KSG Memor ial Trust Society Tamil Nadu
- Development Initiatives By Social Animation (DISA) Uttar Pradesh
- Mani Amma Chaitanya Shravanthi (MACS) Andhra Pradesh
- Nilgiris Adivasi Welfare Association (NA WA) Tamil Nadu
- Prabha Bharti Jharkhand
- Sahaj Sansthan Rajasthan
- Siliguri Greater Lions Hospital West Bengal
- Social Empowerment & Voluntary Association Maharashtra

## **Abbreviations**

ASHA: Accredited Social Health Activist AWC: Anganwadi Centers AWW: Anganwadi Workers BPL: Below Poverty Line FGD - Focus Group Discussion FLW - Frontline Worker ICDS - Integrated Child Development Services IDI - In-Depth Interview PDS: Public Distribution System PRI: Panchayati Raj Institutions SHG: Self-Help Groups THR: Take Home Ration U2: Under-two U5: Under-five



# I. Brief Background of the Study

This cross-sectional, qualitative exploratory study explores in-depth the **demand and** supply factors that impact the diets and nutrition intake of select communities working in the primary sector.

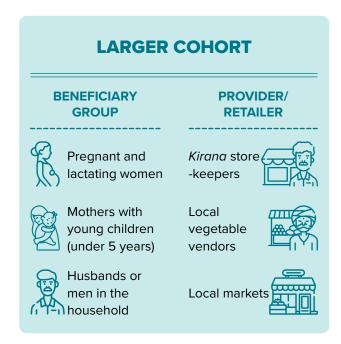
The study provides a comprehensive, in-depth view into collective and individual perspectives on dietary diversity, practices and perceptions related to nutritional value, needs, and supplementation across these communities and locations. Within diet diversity in households, the study emphasizes on the *nutrition-related beliefs, perceptions, knowledge, and practices which influence the diets of young children (ages 0-5 years), pregnant and lactating women, and mothers of children ages 0-5 year* It further seeks to understand the perceptions of the husbands of pregnant women and fathers of young children (ages 0-5 years).

## **Specific aims**

- To explore factors related to diet patterns and diet diversity among the identified communities on the awareness and depth of knowledge about nutritious foods, while factoring in affordability, accessibility, availability, and acceptability.
- To understand barriers and facilitating factors affecting uptake of optimal nutrition practices, particularly among pregnant and lactating women and children under the age of five.

 To generate insights on market-based factors (product, price, promotion, placement) impacting diet patterns.

Based on this, the study puts in focus the following target groups to understand their diet diversity across various geographies:



## The target communities and geographies for the study are:





This study covers primary sector worker communities, who have been identified by Vitamin Angels across multiple states, with an aim to introduce nutrition-led interventions among them in the future.

Among the identified communities, the study employed a series of methods taking into account stakeholders in both the demand and supply side. These include:

- Focus group discussions (FGD) with pregnant and lactating women and mothers of young children
- Personal interviews with husbands of pregnant women and fathers of young children
- In-depth interviews (IDI) with FGD participants among whom any unique case/positive deviance related to nutrition is identified
- Home observation and IDI with select FGD participants to document and visualize nutritionrelated practices at the household level

- IDI with local *kirana* (grocery) stores, shopkeepers, and vegetable sellers from whom the community members procure food items
- Direct observation of markets/shop clusters frequented by the community to understand the demand, availability, procurement process, and supply-related gaps of the food items purchased by them.

The findings from this study are meant to provide a nuanced, contextualized understanding of the key enablers and barriers to diet diversity among these communities. The findings will add critical insights when introducing/replicating nutrition interventions among such communities, leverage contextually relevant knowledge, practices, and evidence to improve diet diversity and therefore their state of nutrition.

# II. Study Design and Methodology

The research approach was exploratory and investigatory in nature, focusing on local collective and individual contexts, attitudes, and behaviors.

The research is aimed to understand the perspectives of different people within the ecosystem, including community participants and local providers It seeks to identify the contexts that influence a community's perspectives and behaviors and correlate consistencies or inconsistencies between them. This, combined with factors like accessibility, availability, and knowledge, give rise to various collective and individual mechanisms. These mechanisms involve emotions, feelings, reasoning, decisions, and actions taken by the actors, leading to a particular outcome.

## **Research steps**

We adopted a modular approach to capture a wide range of attitudes, behaviors, challenges, and good practices. This approach allowed the research team to build upon emerging insights iteratively, especially in cases where they required pivoting the study after encountering specific themes and cases.

A combination of secondary, primary, and quasiethnographic methods was proposed to achieve a comprehensive view of nutrition-related perceptions and experiences among participants. The methods used in this project included:

- FDGs with pregnant and lactating women.
- IDI with men, kirana store owners, and other sellers
- Case study interviews with women.
- At-home interviews and observation of household nutrition practices with women.
- In-field market observations involving relevant stakeholders

## Data collection:

We collected data simultaneously across different centers in a staggered manner. The process involved:

- Identifying villages where respective communities were present, based on Vitamin Angels' existing network and experience.
- Field teams arriving in the villages (before interviews) to screen and recruit participants for the study.
- Conducting FDGs with women and interviews with men.
- Carrying out case study interviews, household nutrition practices interviews, kirana store owner interviews, and direct market observation.
- Debriefing the team on their findings.

## Proposed methods and sample plan

TARGET AUDIENCE	METHOD(S) OF DATA COLLECTION	EXPANDED SAMPLE
<ul><li>Pregnant and lactating women.</li><li>Mothers with young children.</li></ul>	FDGs with women participants.	10 FGDs (1 per location).
	Case study with key individuals who showcase positive deviance or specific themes.	5 case studies.
	Household nutrition practices – at- home interviews and observations.	5 IDIs and observations.
Husbands, fathers, or men in the household	Short interviews.	60 short interviews.
Kirana storekeepers	IDI	10 IDIs.
Local vegetable shopkeepers	Direct market observation.	6 markets.

## Number of study contacts and visits required

All participants were contacted twice:

- First by the recruitment team to secure interest, consent for participation, and scheduling of activities.
- Second by the researchers, at the time of the discussion/interviews.

In the case of FGD participants:

• Two out of 10 participants were contacted a third time too, either for the case study IDI or for the household nutrition practices activity.

## **Data analysis**

Due to the diversity in data collection methods, we employed a coding system for analyzing data for the research.

- The verbatim interviews were transcribed in English to ensure standardization, and the research team checked the transcriptions for quality.
- The team utilized an exhaustive coding system developed a priori, which was later rechecked by rotating transcripts between team members
- Moderators captured in-field observations and key observations through audio recordings, debriefings, and memos.

## Synthesis and reporting of data: COM-B behavior change model:

To visualize the emerging perceptions, behaviors, challenges, and positive deviances, output from the Realist Evaluation framework was combined with the COM-B framework for behavior change. This framework provides three lenses for understanding and framing behavior change interventions:

#### 1. Capability

This refers to whether individuals have the knowledge, skills, and abilities required to engage in a particular behavior. It has two components:

- Psychological capability: The individual's knowledge, psychological strength, skill, or stamina.
- Physical capability: The individual's physical strength, skill, or stamina.

### 2. Opportunity

This refers to external factors that make the execution of a particular behavior possible. It has two components:

- Physical opportunity: Opportunities provided by the environment, such as time, location, and resources.
- Social opportunity: Opportunities influenced by social factors such as cultural norms and social cues.

### 3. Motivation

This refers to the internal processes that influence decision-making and behaviors. It has two components:

- Reflective motivation: Reflective processes, such as making plans and evaluating past events.
- Automatic motivation: Automatic processes, such as desires, impulses, and inhibitions.

## III. Key Learnings Across Communities

## 1. Social and familial context

Social status impacts access to community resources, services: Among the surveyed communities, those from marginalized religious or tribal groups are distinctly more isolated from schools, healthcare centers, and commercial establishments. With the absence of integration with groups or communities considered socially privileged due to their caste, class, tribe, or religion, the less privileged communities are left with limited exposure to information, practices, and goods that can enhance their nutrition levels. This is further exacerbated by economic disparity, as their social status also dictates the nature of employment or the amount of work assigned to them.

For instance, members of the salt pan worker community say they do not have access to primary education or healthcare services. This cuts their access to mid-day meals given to children six years and under at Anganwadi Centers (AWCs).

Among the forestry worker community, several members say they seek employment as construction workers to supplement income from forestry work, since restrictions limit the use of products such as leaves and sap. Further marginalized in the community are people from the Santhal tribe who are seen to have limited access to owned land. Either their land is too small for cultivation or is uncultivable due to the lack of resources like tools and irrigation facilities. The community members also say that even as construction laborers, they are employed as an assistant to a primary construction worker and their work is limited to carrying raw material – this lowers their wages further as other tasks command a higher pay.

"I am working as Dhalaai worker. I am also working as a mason and repair terraces. I am a farmer as well. This is because income is not stable. I earn around ₹ 100 a day. The most I have earned is ₹ 300 in a day" - (IDI, MAN, DEOGHAR) Patriarchal structures prevail in most communities, with the responsibility for household chores and nutrition on the shoulders of young women. The decision-making ability lies in the hands of men and elders. In nuclear families, these dynamics become more relaxed.

In most instances, the woman starts her day a few hours before everybody else, since she is expected to take a bath, clean the home, and prepare meals for the family. In homes with nuclear family structures, the decision-making becomes staggered between the man and the woman, since there are no other members to weigh in and most decisions related to the household impact the well-being of the child – which is important to both. Even as the final decision-making – especially anything related to expenditure – is made by the man, the woman's perspective is accounted for.

In Howrah, West Bengal, for example, where young couples and their children migrate to work in brick kilns, we observed that the purchasing responsibility is decentralized, with the woman sometimes making decisions on what to buy if the man is unavailable to do so or the man and the woman make purchases together.

> "My wife goes out to purchase groceries. I don't." - (IDI, MAN - HOWRAH)

"Generally, it is the men who come to purchase groceries here. However, if it gets late, then the women and children also come to make purchases." - (IDI, KIRANA STORE OWNER - HOWRAH)

Generally, food preferences are made keeping in mind the needs of men and children in the household first, followed by the elders, and finally the women. *The critical aspiration that most men and women harbor is to provide more for their* 



*children than themselves,* negating whether the food is nutritions or healthy (unless in cases where the item is junk food). The common interest in the child's development also implies that the young ones needs receive the most attention in the household. Due to the power dynamics, the man's requirements are next in line, while the woman often comes last in the hierarchy. The onus of advocating for her needs/ wants falls onto herself. *In many cases, we observed that the hierarchy led to the woman having less than adequate quantity of food.* 

"I serve food to my children, my father-in-law, mother-in-law, sister-in-law, husband, and then I eat at the end. I have to first serve food to them, and if I eat first, I get scolded." - (FGD, WOMAN – DEOGHAR)

"The women in the household eat after serving food to everyone else in the household, cleaning up the kitchen, and taking a bath." - (FGD, WOMAN - BASTI)

Women tend to piggyback on their children's desires, when it comes to food consumption. For instance, in Deoghar, a mother said that she prepares an additional vegetable dish because she and her son like it and "nobody else in the household eats it." This appears to give her some flexibility to set aside a small portion of the vegetables for herself and her son.

When male members go out to work during the day, women find the space to unwind and relax after completing household chores. It is during this period that they also begin preparing and providing food for the household. This becomes a strong touchpoint to engage with these women!

## **2. Economic and infrastructural context**

Families engaged in primary sectors related to food – fishing, agriculture, tea plantation – tend to have greater accessibility and capability to ensure a diverse diet in the households: Communities engaged in agriculture, fishing, and to an extent those working in tea plantations, report having greater diversity in their diets.

There are a number of reasons for this: Work revolving around food produce helps them acquire or have greater legacy and practical knowledge around food variety, procurement, sale, preparation, etc. For example, fishermen who sell their catch at fish markets in Ganjam, Odisha, have exposure and knowledge about the variety of fish and other produce sold in the same markets. In the case of the farming community in Visakhapatnam, Andhra Pradesh, the families utilize their own patch of land to grow vegetables for themselves. This is over and above the farming work they carry out for their livelihood.

"I started eating black gram, jaggery, and almond as it gives me strength and iron. Iron helps in maintaining the blood level. I eat black gram every day in the morning. I eat that as it is necessary for me at this time." - (FGD, WOMAN - BASTI)

"Everybody in the village gives suggestions, not just my mother-in-law, on matters related to health, For example, if a child is suffering from diarrhea, then the people suggest feeding certain items to prevent their health from deteriorating. They suggest adding salt and sugar in hot water and feeding the child. They also suggest giving the child gripe water." - (WOMAN, TEA PLANTATION COMMUNITY)

Food produce is apportioned between household consumption and commercial use: In these communities, the families are able to apportion food such as grains, pulses, vegetables, or fish in the case of fishermen, for personal consumption as well as to sell commercially.

"I grow black chana gram. We keep it for home and only sell if we have excess quantity." - (IDI, MAN – JODHPUR)

In communities where food produce is an output, members report large instances of bartering their produce, indicating a greater cohesion within the community: As seen in the farming communities of Visakhapatnam and Maharashtra's Parbhani, the members also demonstrate a greater propensity towards exchanging goods, depending upon what is available in surplus versus what is required.

"I am a fisherman but I work for someone else. If it's a good day and we caught a big batch of fish, my employer gives us 1-2 fish for ourselves. Otherwise, we have to buy it from the town market." - (IDI, HUSBAND - GANJAM)

*Land ownership and livestock contribute to positive nutrition practices and diet diversity:* Across communities, members who owned land or



livestock like hens, goats, etc., demonstrated that they consumed more diverse food like vegetables. grains, meat, and/or milk.

*Migratory work severely impacts motivation and ability to ensure adequate or diverse nutrition:* In communities where members migrate from their hometown for smaller durations – for instance, farm laborers in Basti, Uttar Pradesh, or brick kiln workers in Howrah shelter and sustained income become the core priorities. Nutrition, in such cases, tends to take a backseat. Food is mostly looked at as a means for sustenance and energy to keep performing physically intensive work. .

In most communities – except the farming community – women contribute directly or indirectly to the primary sector work, over and above their end-to-end household responsibilities:

In the fishermen community in Ganjam, women are responsible for preparing or repairing the nets their husband or father-in-law use for fishing. In the tea and coffee plantation worker communities in both Jalpaiguri, West Bengal, and Niligiris, Tamil Nadu, men and women are allocated different tasks in the plantations. In the brick kilns in Howrah, the employers or managers contract both men and women, although women are paid less than men. "The men go in the morning and pull a net they fixed the previous day. When it becomes very dirty, they bring it home. It takes us 2-3 hours to clean it." (FGD, WOMEN - THOOTHUKUDI)

## **3. Education, technology** access, and utility

Households where women have higher levels of education see greater propensity to introduce supplementary food for children under-two (U2) and under-five (U5): The amenability to supplementing nutrition for children and pregnant women is substantially greater in homes where either the woman, her husband, or even her inlaws have a high level of education (Class 8 and upwards). We found incidences of items like milk being procured separately for the child or pregnant woman, Cerelac for young infants, and fortified biscuits and Horlicks for children.

It is also in these households where members leverage technology such the Internet and social media to corroborate their knowledge about what "foods to avoid." In Visakhapatnam, fathers were found to be very clear on not feeding children packaged foods, since these contain high salt content and can impact the child's health. The same





is for excessive sugar consumption, with both men and women citing the rise of and susceptibility to diabetes as a critical reason for this.

"We mostly search about food on YouTube. The first thing I searched for was what I should feed my child." - (WOMAN, TEA PLANTATION COMMUNITY)

Proximity to urban locations (within 15-20 km) impacts the availability of supplies for communities living nearby: These locations offer convenient access to various modes of transportation, additional economic opportunities, and exposure to a wide range of packaged and raw food items. These places provide business owners with greater opportunities to establish new ventures within the community.

 Tribal plantation workers in Nilgiris have limited access to kirana stores and other sellers due to the absence of shops within their village. The nearest store, located 3-4 kilometers (km) away, stocks only a limited range of items. Larger establishments with a wider variety of products, which can be purchased in bulk, are at least 15-20 km away. In contrast, the plantation worker community in Jalpaiguri, located near a tourist destination, has easy access to markets selling a variety of food items, including those sourced from Nepal, Bhutan, and Bangladesh. Their exposure to items such as clothing, toys for children, and ready-to-eat food is much greater than that of the same community in the Nilgiris.

Of the three farming communities (small landholders and laborers) surveyed, the community in Basti is located adjacent to the highway and only 3-4 km from the town. In Visakhapatnam, however, the tribal village is at least 20 km from the nearest small town with commercial establishments. This significantly impacts their access to markets, and community members must rely on scheduled public transport to visit the town for purchasing food items, limiting their frequency of access.

## Food is primarily associated with sustenance and energy for performing daily tasks, especially in economically unstable communities: In

communities where income is based on daily wages, seasonal or weekly work (such as brick kiln or tea plantation work) can be inconsistent. Community members may not always be able to provide adequate meals for all members of the household. Men have reported instances where the number of meals in their households has been reduced from three to two to accommodate limited cash flow.



The key properties attributed to food consumption across communities are as follows:

#### MOST COMMONLY REPORTED

- 1. Satiety or filling of the stomach, resulting in a feeling of satisfaction.
- 2. Energy to perform work throughout the day and prevent lethargy.
- 3. Fulfillment of desires related to food items, such as taste, temperature, and texture.
- 4. Cooling or heating the body, depending on the specific item.

#### 4. Nutrition knowledge

Food-related knowledge is often passed down from one generation to the next as legacy wisdom, with little questioning by young couples or parents. Despite facing abject food scarcity, many communities have idiosyncratic food preparation and consumption practices: This variability is attributed to access to resources and legacy wisdom passed down from elders to younger generations. These practices are mostly neutral or sometimes positive in terms of diet diversity, but individuals often lack understanding of their rationale, benefits, or impact.

#### SOMEWHAT COMMONLY REPORTED

- 5. Helping people maintain a content and therefore 'happy' or interactive mood.
- 6. Causing secondary impact such as affecting the skin and other organs (liver, kidney, blood, etc.).
- 7. Increasing blood in the body, especially for pregnant women.
- 8. Increasing milk production in lactating women.

#### LEAST COMMONLY REPORTED

- Providing essential nutrients like vitamins and protein to keep children in good health (where good health refers to the absence of illness).
- 10. Aiding physical and mental growth in the form of strength, physical growth in size/height, or intelligence.

"My elder brother-in-law told me to give children bread soaked in milk. He also feeds this to his children" - (FGD, WOMAN – JODHPUR)

> "Older people tell us what is good." - (FGD, WOMAN – JODHPUR)

"There is little propensity to question existing knowledge, unless experiencing ill-health or advised by an 'expert' like FLW, doctor, etc." - (FLW, DOCTOR, ETC.) As mentioned above, legacy wisdom or advice from elders is rarely questioned by both men and women. When asked about the reasons for preparing certain foods, introducing complementary diets at a prescribed age, or avoiding "harmful" foods like papaya and guava for pregnant women, most participants explain that their parents recommended the practice. The common belief is that if the elders raised them successfully, then their own children would also be safe and healthy under the supervision of their grandparents.

"Sahiya (ASHA) didi tells us about what injections to take and when to visit the doctor" - (FGD, WOMEN - BASTI).

"We get information (on matters of health) from the AWC where we also get iron and calcium tablets, Horlicks for mothers, and other things after giving birth." - (WOMAN, TEA PLANTATION COMMUNITY)

"ASHA and other FLWs give us advise such as, if we have a baby then there should be a gap before the birth of the next child, what medicines or methods we should use for contraception, what medicines or treatment we should take in case of any illness, and how to make the children eat the best food. They also inquire whether we are having our periods on time or not."

- (WOMAN, TEA PLANTATION COMMUNITY)

## **5. Perceptions related to nutritional value of food**

Perceptions around good food are mostly linked to the tangible absence of negative health outcomes (no reported illnesses) and the properties of food indicated earlier.

- Good food includes staples like grains and pulses that are consumed at home every day and do not evidently harm the body.
- Homemade food is inherently good and better than anything cooked outside or packaged. Across communities, food cooked in the household is considered to be lighter, cleaner, and more healthy. Good food provides energy and strength to take on physical tasks, and prevents fatigue.

Good food includes some vegetables and fruits, but in most communities, these items are immediately highlighted as expensive and "good" only if they can be purchased.

There are some common traits that make "bad" food unfit for consumption. This does not always indicate that these foods are prohibited or not consumed. Across communities, "bad food" is seen as food items that are consumed occasionally or given to children when they demand them.

- Food items that are packaged or made outside the home like chips and biscuits, or food items like chowmein and *chaat* sold in markets by hawkers, are classified as "bad food."
- There is an understanding that heavy food like sweets, fried food, or very spicy items typically prepared during festivals are not good for everyday consumption.
- Spicy and oily foods are perceived to be bad for pregnant or lactating women as they could potentially impact the health of the fetus or the quality of milk available to the infant.
- Specific items like eggs are perceived to be bad because they are believed to create heat in the body and cause harm like indigestion or boils on the skin, especially in hot or humid climates.
- Papaya and guava (fruits that are fibrous, sweet, and have seeds) are perceived as bad for pregnant women in most communities as they are believed to cause harm to the growth of the fetus. This knowledge is typically passed on through generations (from mother-in-law to daughter-in-law) and tends not to be questioned.

## 6. Consumption

*In most communities, the same food is prepared for the entire household, including for children, elders, and pregnant or lactating women:* Meals are typically prepared by the woman in the household. Modifications, if any, are made in the form of:

- Separating food for U5 children/ lactating women, before oil and spices are added for the remaining members of the household.
- Mashing or watering down solid food to make it softer and easier to chew and digest.
- Purchasing items like Horlicks and milk to supplement meals for children between the ages of 2 and 5.
- Adding fruits to the diet of the pregnant woman.

In most households in the communities we surveyed, the following was the pattern of food consumption:

#### DAILY

- Grains like rice, *ragi*, wheat, etc.
- Pulses like *arhar, masoor, moong*, etc.
- Potatoes, onions, and garlic
- Salt and spices– hing, turmeric, chilli, and other whole spices.
- Oil either refined or mustard.
- Snacks packaged or home-made chips, namkeen, biscuits, ice cream, readymade food like noodles, especially consumed by children
- Tea, with or without milk

"Everyone eats the same food. We don't prepare different food for anyone." - (FEMALE, JODHPUR)

Across communities, pregnancy is the only stage where women receive priority with respect to household work and food consumption, except those experiencing severe economic hardship. This exception <u>does not extend</u> to women post-partum and while they are lactating.

Mostly, women tend to be the last ones to consume meals in the household after the men, children, and elders have eaten. However, across communities, men and women report that pregnant women receive exceptional considerations during pregnancy. This attention manifests in the form of:

- Exemption from carrying out household chores, especially in the last trimester of pregnancy.
- Special items being prepared for the woman's consumption over and above basic meals.
- Enquiring about and indulging women's food cravings during the course of the pregnancy. This includes occasionally purchasing spicy or special food items like spices, pre-cooked snacks like noodles and *chaat*, or ice cream.
- Providing additional items in household ration such as fruits like banana and pomegranate, as they improve blood volume and fetal and maternal health.

#### **ONCE A WEEK OR MORE**

- Vegetables like tomatoes, brinjal, cabbage, bottle gourd, pointed gourd, spinach, etc.
- Milk (for pregnant women and children)
- Sugar or sugar-based items
- Chicken, meat, and fish (in communities who eat nonvegetarian food)

#### **ONCE IN TWO WEEKS**

 Fruits, when money is available and basic staples have been purchased: Apple, banana, guava, pomegranate, watermelon, etc.

#### **ONCE A MONTH**

- Any milk products ghee, buttermilk, sweets, etc.
- Nuts or dry fruits
- Eggs

#### RARELY

• Food cooked during festivals such as *halwa*, etc.

#### NEVER

- Items like *paneer* and *ghee* made from milk
- Items like refined flour, etc.

**Exclusive breastfeeding appears to be a prevalent practice in most communities.** In the communities we visited, infants were being exclusively breastfed until 6 months of age. In most cases, the woman continues to breastfeed her child until they are able to control their own consumption, i.e., eat using their own hands. In many communities, this is reported as a way to prolong the duration of breastfeeding, thereby eliminating the need for supplementary nutrition for as long as the woman is lactating. In resource-scarce communities like salt pan workers in Jodhpur and the forestry community in Deoghar, breastfeeding the child continues almost exclusively for as long as 2.5 to 3 years of age.

Complementary feeding, however, is highly subjective and sporadic across communities, even where there is access to food resources. Each household tends to employ its own approach to complementary feeding. There is little consistency on when to introduce complementary feeding, though it is typically initiated when the child reaches the age of 1.5 to 2 years. In rare instances as seen in Deoghar (forestry community), this age extended past 3 years or "until the mother is able to produce milk" since this is economically viable for resource and finance-scarce households where a single meal is extended for consumption throughout the day. In terms of quality, volume, and preparation of food given as a complementary diet, there is no consistency except for a unanimous



understanding that "hard textures," "ingredients that can be irritants," or "food that is heavy to digest" are typically avoided for children. That is, a mashed, spice-free, and low/no-oil variant of the food for the household is given to the child. The perceptions on quantity vary from "tasting food" that adults are consuming to feeding the child "as much as other members or until the child stops eating on their own."

## 7. Decision - making: Preparation

Each community has its own modifications for standard food preparations, which is typically attributed to:

- Availability and accesibility of raw material: In Ganjam, the fishermen community uses ragi grain and flour for everyday cooking since it is widely grown in the area. The Government of Odisha has been investing in the Odisha Millet Mission to boost production of 'nutri-cereals' and empower small farmers,<sup>1</sup> leading to widespread knowledge about ragi and improving its access as a nutritious and filling grain for children and adults alike.
- Special needs of children: In the agriculture community in Parbhani, mothers say they mash food they already make for the household and serve it without oil and spice to children who are still being breastfed. This ensures easy chewing,

swallowing, and digestion.

"We should not feed children meat, eggs, fish, and very oily food. They vomit and can fall ill. They can catch jaundice after having very oily food or even develop boils on their bodies." - (FGD, MOTHER – DEOGHAR)

"We give children Horlicks and cashew nuts so that their brain grows faster and sharper and the body stays fit." (IDI, MAN - HOWRAH)

Special needs of pregnant women: Across communities, members use additional food items in the meals for pregnant women as a way to fortify their diet. In the forestry community in Deoghar, for instance, a woman we spoke to said she adds nuts and dry fruits to her food. Many communities also say they they add leafy/ green vegetables, milk, or ghee in pregnant women's diets to ensure strength to nourish the fetus. They also feed specific fruits such as pomegranate, which is believed to increase blood in the body.

<sup>1</sup> https://www.newindianexpress.com/states/odisha/2022/jul/04/government-plans-to-double-*ragi*-production-under-odisha-milletmission-2472732.html



"When I was pregnant I use to eat cashewnuts, raisins, and Horlicks. Otherwise I used to eat the food prepared at home." - (FGD, WOMAN – DEOGHAR)

**Special needs of elders:** Food for elders tends to be softer, easier to digest ("not causing any problems to their stomach or healt") and free of excess spice. In the fishermen community in Ganjam, members cook a customary one-pot dish for elders called *Santula*, which incorporates all fresh and seasonal vegetables with a combination of spices that are not hot like mustard, cumin, fennel, fenugreek, etc., and ginger or garlic. The dish is boiled or pressure cooked until it becomes mash-like in texture. This dish is fed to children under the age of 5 as well, as it is nutritious and easy to prepare and consume. Being less spicy, it is also easy to digest and helps during stomach disorders.<sup>2</sup>

**Festive periods:** Festive periods turn to exceptions when it comes to cooking special food. In most households across communities, all the members consume the same food items. Typically, the dishes are characterized by richness – they will likely contain one or more of the following:

• Very refined flour/grains such as *sooji halwa* or rice flour.

- High-sugar sweets like rasgulla, barfi, kheer, etc.
- High amounts of fats such as oil/ghee used to make sweets.
- Spicy and/or aromatic food like biryani.
- Expensive (more than usual) -- to buy higherpriced items like mutton.

"Halwa is made on special occasions and it is sweet treat!"

- (IDI, MAN – JODHPUR)

"I sometimes make Biryani if I have guests coming over." - (FGD, WOMAN – JODHPUR)

"During festival time, I fry fish in cumin seeds, fenugreek seeds, and ginger and garlic. I cook and dance at the same time!"
- (VOICE OF A WOMAN FROM DEOGHAR)

Woodfire is often used as primary fuel to cook on the choolhas (earthen stoves): Multi-income households also use gas stoves along with the choolha. In the brick klin community in Howrah, forestry workers in Deoghar, or the tribal farm

<sup>2</sup> https://kids.kiddle.co/Santula

laborers in Visakhapatnam, where economic resources are limited due to limited income, *choolha*s are shared between 2-3 households and located in common areas.

Meat or poultry dishes in most communities (except the fishermen community) are typically prepared on the *choolha* outside the home. It is not customary to bring raw meat inside the homes of Hindus and tribal community members. Only Muslim households across most communities tend to prepare meat or poultry inside the home.

"We pick wood to fire up the choolha and make food. We use both the gas stove and the choolha" - (VOICE OF A WOMAN FROM DEOGHAR)

## 8. Storage

 Across all communities, there is a common belief that food must be prepared fresh for consumption: The ideal way to consume food is to eat it immediately after preparation, or at most by the end of the same day. Only in communities where resources are extremely scarce, members have found ways to store food in the absence of a refrigerator.

- » In Howrah, brick kiln workers have made cubbies in their mud homes, which act as makeshift shelves to store food in vessels and away from heat, humidity, or wind. The moist mud keeps the food cool and under its shade.
- » In Deoghar, members of the forestry community have adapted how to keep cooked food fresher for longer with experience from their own indigenous dish, *Maar Bhaat*. Some households have discovered that the dish lasts the whole day and even till the first meal of the following day when submerged in water. In homes facing food shortage, women have reported submerging all the cooked food in water to be able to consume it for longer periods and maximize utility.
- Families with relatively higher income tend to have access to a refrigerator to store perishable items, but it is still not commonplace to store cooked food: Given the tradition of consuming freshly cooked food the same day, the use of refrigerators are typically limited to fresh/perishable items like eggs, milk, and food items that may spoil due to heat.
  - Some fresh vegetables, Horlicks prescribed by the doctor for the pregnant woman, eggs,



and milk were found inside a fridge in a farmer community home in Basti

» It is important to mention that in most communities, consumer durable like refrigerators and vehicle like motorcycles are received as dowry at the time of marriage.

## **9. Decision making: Purchase of food items**

Men are typically responsible for setting budgets and making purchases of food items: In most communities, men have greater mobility (even in locations where women go to work) and tend to make all household purchases. This is typically done by younger male members of the family and not necessarily by the father. The mother-in-law also has agency to prioritize purchases of food items. That is, if the son is going out to make a purchase. In such cases. she will inform him about what critical items need to be purchased.

 Mother-in-law stands as proxy for men, if they are not available to make purchases. In many communities, if the men in the household are not available to make food purchases, the eldest woman or mother-in-law is responsible for making them. Men report depending on their mothers to prioritize the limited expenditure.

- Young women are responsible for managing the stock of food items at home and sharing information about requirements for everyday cooking. However, they are mostly not involved in allocating funds for purchases. In most cases, the need for restocking food items is initiated by the woman.
- In nuclear households, the woman is also a decision-maker for food purchases. Men in such households report being dependent on the woman to know what she requires to sustain food availability for the entire family. They also ask the woman what she wants to consume herself. For instance, at a home in Deoghar, a husband says he buys mutton every time his wife requests for it due her cravings.
- No list is created for food purchases in most households, except those where educational levels are high. The list of food items to be purchased is typically narrated verbally. With the ubiquity of mobile phone access, men also call their wives to confirm what to buy.
- Frequency of food purchase is linked to the frequency of income. For instance, brick kiln workers in Howrah purchase food items in small quantities each week on Monday when they get paid. In Deoghar, members of the forestry



community purchase produce after receiving their daily wage. In the farmer community households in Parbhani and Basti, where multiple male members of the family are involved in farming leading to multiple incomes, fluidity of cash helps them make bulk purchases from the weekly market, *kirana* stores, or wholesale markets in nearby urban locations.

- Food items such as packaged snacks, biscuits, ice cream, and noodles are typically purchased by men without any deliberate decision-making process, as they are often bought on impulse. These items are primarily intended to be consumed by young children. Occasionally, when children accompany their parents to markets, the fathers buy snacks on the spot such as Maggi instant noodles, chips like Kurkure, Tedhe Medhe, and Lays, and ice cream from local carts. Moreover, they also purchase ready-made food such as chowmein, *chaat*, fried snacks (*namkeen*), and egg dishes from vendors in local markets or weekly mandis.
  - » In some locations, children as young as 3 to 4 years are given ₹ 5 to ₹ 10 every other day (sometimes even daily) to purchase a snack of their choice from the nearby *kirana* store. *Kirana* store owners report that many children come to buy chips, and while they do not specifically ask for branded items, Kurkure is a prominent name that pops up for chips.
  - » Biscuits like Parle-G and Marie Gold are consumed not only by children but also by adults, especially in the farming community of Basti. Along with the biscuits, they also purchase bread or rusk, which they consume with tea in the morning.

## 10. Role of FLW, ICDS, and others

The role of frontline workers (FLW) is crucial in enhancing knowledge related to food for women and, subsequently, the entire household. Communities that consistently engage with FLWs such as Accredited Social Health Activist (ASHA) or Anganwadi workers (AWW), tend to have a better understanding of the nutritional value of food.

For instance, in Ganjam, women from the fisherman community attribute their awareness about the importance of providing green, leafy vegetables to children under 5 years of age for their physical and mental development to conversations with AWWs. Similarly, men from the farming community in Visakhapatnam say that they have learned that high levels of sugar in food leads to diabetes among older people and is unhealthy for children.

In contrast, in communities of brick kiln workers in Howrah and salt pan workers in Jodhpur, there seems to be a lack of awareness, consideration, or knowledge about the potential positive or negative effects of different food items on a child's health. In these communities, the main priority is to provide all meals to children and ensure they are adequately satiated.

## 11. Social schemes – Public Distribution System (PDS) & Take-Home Ration (THR) PDS:

The Food items are made availability to vulnerable communities through the PDS where individuals have required documentation. The types of items available vary from one location to another.

In Deoghar, members of the forestry community receive a *fixed monthly ration* from the PDS, including a smaller amount of wheat (5 kg) per individual. *The quantity of rice often does not suffice for daily consumption (at least 2 meals a day for all household members), leading to their need to supplement supplies by purchasing from nearby markets.* 

Most communities who receive PDS are not aware what quantities of food items are provided to them. They report quantities based on what they receive.

For the brick kiln worker community in Howrah, being migrants from different regions means they lack the knowledge, documentation, and access to avail benefits from the PDS. Consequently, they rely solely on their income to purchase all food items. *This affects their ability to afford essentials items such as vegetables and fruits since most of their income is spent on grains and pulses and the remaining on spices, oil, and vegetables.* 

In the plantation worker community in the Nilgiris, although there are no *kirana* stores in the village, the PDS center is referred to as the "local store," where they access staples like rice and wheat. This enables them to allocate their income towards purchasing pulses, vegetables, and even a variety of fruits.



#### THR:

The availability of THR is inconsistent across communities. THR is usually present in communities with an active AWC, where parents drop their children for the day. Here, children also access mid-day meals, although this too is inconsistent, depending upon the level of activity of the AWW.

In Deoghar, the forestry community receives small packets containing a mixture of broken wheat (dalia), nuts, and fruits. This is intended for both children and pregnant women. However, these items are often shared and consumed by the entire household, especially when THR is provided for a pregnant woman.

For the brick kiln worker community, since the AWC is situated far away, its members lack knowledge of and access to THR and day-care services. Hence, they end up taking infants and young children into brick kilns for work during the day.

#### **12. Markets** Accessibility:

In most communities living at considerable distances (over 20 km) from urban centers and having a standalone *kirana* store or one that is far away, customers face limited variability or comparative pricing options.

- Owners of *kirana* stores situated close to or inside rural areas say there is sporadic demand, with customers often making last-minute purchases of small quantities. People prefer traveling to more distant markets to buy items in bulk and from multiple stores.
- These kirana stores stock a large variety of items in smaller quantities, including root vegetables, flour, pulses, dry fruits, spices, and packaged snacks like chips and biscuits. Additionally, they also stock loose snacks and personal care items such as shampoo, soap, shaving cream, bindis, bangles, and sanitary napkins for women.
- As most communities supplement their income based on seasonal work or income from primary sector activities, the men (except in the case of farming communities) often travel to nearby towns or cities for labor or to sell their produce.

On the other hand, regions with closer proximity to urban centers, such as Basti or Ganjam, offer consumers more frequent access to markets with a greater variety of products, variable prices, and opportunities for wholesale purchases.

- Here, women are seen to be actively involved and influential during the purchase process, as they accompany their husbands to nearby markets or club purchases with doctor visits
- Most communities have access to weekly haats

or markets they purchase perishable items like vegetables and loose spices. Although men predominantly visit these markets, in some communities such as the fishermen community in Ganjam and Tootthukudi, plantation workers in Jalpaiguri, and brick kiln workers in Howrah, both men and women say they visit the markets weekly or once every two weeks for large-scale food purchases.

#### Sale and stocks:

- Kirana store owners report that their highest selling products are chips, namkeen, and biscuits. They also say that children as young as 3 to 4 years visit their store with ₹ 5 or ₹ 10 to purchase items like biscuits and chips.
- Most of these stores sell dry items like *atta*, *sooji*, or pulses in small quantities, usually when the household urgently requires them.
- Some items such as oil, *ghee*, and jaggery are also stocked, but they are not fast-moving and are purchased occasionally as incidental items.
- *Kirana* stores replenish their stock anywhere from once a week to as frequently as every

second day, based on their inventory levels.

- These stores also serve as centers for daily purchases of tobacco-related items such as chewing tobacco, *beedis*, and cigarettes.
- Across regions (except Jodhpur), vegetable and fruit sellers offer a variety of seasonal vegetables and fruits.

#### **Factors influencing decision-making:**

- The visibility of items such as chips hanging at the front of the store or other products on display, influences purchase decisions. *Kirana* stores often place packaged snacks at the forefront, while raw food items are kept at the back of the store.
- Kirana store owners note that branded posters, especially those featuring images of packaged food items, tend to impact visibility and sales. For example, in Ganjam, parents are influenced by the image of milk on Parle-G posters, assuming it to be healthy for the child.
- Similarly, Vita Marie biscuits are purchased due to the belief that it contains essential vitamins.



Special food provisions for pregnant women	Monitoring quantity of food intake for children U5	Monitoring quality of food intake for children U5	Complementary feeding till child is 2 years old	Complementary feeding after infant is 6 months old	Exclusive breastfeeding	Overall diet diversity	Nutrition knowledge	Education and access to technology	Proximity to urban location	Location		COMMUNITIES
Moderate	Low	Low	High	Low	Moderate	Low	Low	Low	High	Howrah, West Bengal	BRICK-FIELD WORKERS	
Moderate	Low	Moderate	Moderate	Low	High	Low	Low	Low	High	Deoghar, Jharkhand	FORESTRY COMMUNITY	
Moderate	Moderate	High	High	Low	High	High	Moderate	High	High	Jalpaiguri, West Bengal	TEA/COFFEE WOR	100
Moderate	Low	Moderate	Moderate	Moderate	High	High	Moderate	Moderate	Low	Nilgiris, Tamil Nadu	TEA/COFFEE PLANTATION WORKERS	1. Ele
High	Moderate	High	High	Moderate	High	High	High	Moderate	High	Ganjam, Odisha	FISHE	<b>.</b>
Moderate	Fox	High	Moderate	Moderate	Moderate	Low	Moderate	Low	High	Thoothukudi, Tamil Nadu	FISHERMAN COMMUNITY	ৰ্ম্বিশ্ব
Moderate	Moderate	High	High	Low	High	Moderate	Moderate	High	High	Parbhani, Maharashtra	SM	
Moderate	Moderate	High	Low	Low	High	Moderate	Moderate	Moderate	Low	Visakhapatnam, Andhra Pradesh	SMALLHOLDER FARMERS /FIELD LABORERS	-×- 0
Moderate	Moderate	High	Moderate	Low	High	Moderate	Low	Moderate	High	Basti, Uttar Pradesh	IERS	
Moderate	Low	Moderate	Moderate	Low	Moderate	Low	Low	Low	Low	Jodhpur, Rajasthan	SALT-PAN WORKERS	

COMMUNITIES			001			য়৽৽৾৾৾য়৾৽য়		0 -×-		
	BRICK-FIELD WORKERS	FORESTRY COMMUNITY	TEA/COFFEE PLANTATION WORKERS	PLANTATION KERS	FISHE COMM	FISHERMAN COMMUNITY	SMA	SMALLHOLDER FARMERS /FIELD LABORERS	ERS	SALT-PAN WORKERS
Allowances in routine of pregnant women	гом	Low	Low	Moderate	Moderate	Гом	High	Low	Low	Low
Special nutritional provisions for lactating women	Low	Low	Low	Low	Moderate	Low	Moderate	Low	Pow	Low
Access to PDS/ THR	Low	Moderate	High	Moderate	High	Moderate	Moderate	High	High	Low
Active engagement with FLW	Low	Moderate	High	Moderate	High	High	High	Moderate	High	Low
Access to market	High	Moderate	High	Low	High	Low	High	Moderate	Moderate	Moderate
Proximity to kirana store	High	High	High	Low	High	Low	High	Moderate	Moderate	Moderate
Affordability	Low	Low	Moderate	Moderate	Moderate	Moderate	Moderate	Low	Moderate	Low
Education: Men	Little formal education	Between Class 5-Class 10	Primary education- secondary schooling	Primary education- secondary schooling	Few till Class 12, others Class 10 and Iower	Primary education up to Class 8	From no education up till secondary education	From no education up to Class 12	Class 8 Graduation	Between Class 5-Class 10
Education: Women	Little formal education	Class 8 till Class 10	Primary education - graduation	Primary education- secondary schooling	Up to Class 5 to Class 10	Not educated till Class 8 - Class 10	Between completing schooling to graduation	Class 5-Class 10	Up till Class 8 to Class 10	From Class 5 to Class 10
Income (INR)	₹ 7,000/- to 10,000/- per month	Mahua season: ₹ 1,000/- to 2,000/- per day Otherwise: ₹ 200-300/ day (labour)	Around ₹ 600/- per day	Around ₹ 600/- per day	₹ 500/- to 800/- per day	₹ 1,500 - to 5,000/- per day	Community falls under BPL category	Women: ₹ 3,800/- to 4,500/- per month Men: ₹ 4,500/- to 5,400/- per month	Community falls under BPL category	₹ 400/- per day

# IV. Key Action Points and Areas for Future Course of Action

### An overview of the capability, opportunity, and motivation to achieve diet diversity and areas for future action:

Summarizing the pillars of the COM-B framework of analysis<sup>1</sup>:

- Capability refers to the inherent skill and knowledge available to individuals to carry out certain actions, including mental and physical abilities. Platforms for upskilling and knowledgebuilding can be set up to help individuals feel empowered to achieve the desired action.
- Opportunity here refers to the physical, environmental, social, or psychological factors that create an enabling environment for individuals or communities to take action.
   Improving opportunities may involve policy actions, programmatic interventions, ceating knowledge exchange platforms, and providing access to resources, incentives, etc.
- Motivation refers to internal processes that impact decision-making, including fears, inhibitions, desires, and reflective motivation that involves planning. Improving motivation could involve leveraging positive motivations or demonstrating the positive outcomes of certain behaviors to increase desirability and likelihood of action. The greater the desirability, the greater the likelihood of enhancing motivation.

## Key insights CAPABILITY

#### Physical capability:

- Ownership of land, livestock, or homes tends to enhance the capability to improve nutritional intake.
- Government focus on specific food items can boost the capability to produce, procure, and utilize nutritional alternatives, as seen in Ganjam where *ragi* has become a staple due to an economic push.

#### Psychological capability:

- Communities engaged in primary sector work related to food have greater exposure and knowledge about food and nutrition.
- Access to education and technology improves the ability to convert motivation for better nutrition into action, utilizing resources like YouTube videos, access to doctors, etc.
- Antenatal and postnatal check-ups with doctors provide women direct access to nutritional knowledge.

Many households give items like Cerelac or Horlicks to children after gaining knowledge about the nutritional value of foods and foods to avoid from doctors.

### **OPPORTUNITY**

#### Physical opportunities:

Accessibility to markets plays a significant role as communities closer to urban centers have better access to resources and can make wholesale purchases from markets with multiple *kirana* stores or *mandis*, leading to greater bargaining power and variety in vegetable and fruit purchase, optimizing expenses on food.

In these locations, women are more involved in the procurement of food items due to the easy access to markets and social acceptance of traveling shorter distances with their husbands. However, in areas isolated from urban centers, it is mostly men who buy food items, leading to a communication and planning gap between women and men.

Having personal or public mobility also enhances the capability to access food resources.

 Consistent and regulated access to government schemes related to THR and PDS significantly reduce the need for buying staples from limited income. Homes with adequate PDS provisions tend to purchase more vegetables and fruits

<sup>1</sup> https://social-change.co.uk/files/02.09.19\_COM-B\_and\_changing\_behaviour\_.pdf

https://thedecisionlab.com/reference-guide/organizational-behavior/the-com-b-model-for-behavior-change https://www.researchgate.net/publication/314086441\_The\_COM-B\_Theory\_of\_Change\_Model\_V3

since their everyday staples are taken care of.

 Adequate availability of THR also provides pregnant women with access to nutritious supplementary diets like dalia or small amounts of fruits and nuts, Children under the age of 5, too, get access to meals other than what is prepared at home, promoting better nutrition.

#### Social opportunities:

- Community platforms like self-help groups (SHGs) and festive gatherings bring community members together, but they rarely involve interactions related to nutrition.
- Exposure to AWW and AWC offers knowledge about good nutritional practices, and in these communities, participants are more likely to refer to terms like "vitamins" and have technical knowledge about the importance of complementary feeding.

#### **MOTIVATION**

#### Automatic:

There is explicit motivation to prioritize the nutritional needs and well-being of children and pregnant women. However, there may be a lack of knowledge on how to best fulfill these motivations.

 For pregnant women, the actions focus on prioritizing their desires/cravings and eliminating foods known to be harmful during pregnancy. For children, the priority is on diet modification until the age of 2 to 3 years to minimize negative impact. After 3 years, children are allowed to control and decide the quantity and quality of food they consume, and indulgence is considered important.

#### **Reflective:**

 Household food consumption is typically managed by women, but decision-making regarding planning and procurement of food items wrests with men and elders in the household..

## Key actions ENABLE

*Provide access to information and knowledge, particularly among women* in communities with limited knowledge about nutrition, especially community such as brick kiln workers, salt-pan workers, and the forestry community.

There is a need for women to gain access to the touchpoints of resources where they can systemically build their nutritional knowledge.

Focus on mandating access to nutritious resources at the district/state-level. For instance, the Government of Odisha focused on millets, which has



led to increased knowledge, visibility, access, and utilization of *ragi* as a wheat alternative.

### **ENHANCE**

Consider incentivizing community members to set up multiple *kirana* stores in smaller, isolated locations to improve access to food variety and competitive pricing, eliminating the need for long commutes to procure daily food items as soon in Visakhapatnam and the Nilgiris.

## Introduce programmatic intervention by utilizing existing social platforms:

- Create a meta platform involving AWW, ASHA, and SHG and Panchayati Raj Institutions (PRI) members to highlight maternal and child health as a community cause. The platform can be used for multiple initiatives, including reviewing and monitoring PDS/THR access, knowledge exchange on positive practices, and using SHG members (who tend to have greater social exposure and access) as catalysts for greater social interaction around the subject of nutrition.
- Consider incentivizing SHG members to promote maternal and child nutrition for increased awareness on the subject.

## EXTEND

- 1. Leverage existing motivations to provide nutritious alternatives for:
  - Lactating women by piggybacking on the motivation to make special provisions for pregnant women.
  - Children between 3 to 5 years of age by emphasizing the importance of continued monitoring of food quality and quantity.
  - Demonstrate and help communities visualize the negative impact on physical and mental development resulting from an unregulated diet or excessive consumption of packaged foods and snacks.
- Consider communication interventions on collaborative food purchase planning between the husband and the wife (parents of young children) as a means to achieve positive household nutrition and ensure good health for the child "Swasthya parivaar, swasthya shisu (healthy family, healthy child)."

Vise
ity-V
unu
Comr
<b>hts</b>
ghlig
I.
Inative
Comparati
>

COMMUNITIES	FISHERMAN	BRICK-FIELD WORKERS	A C C C C C C C C C C C C C C C C C C C	TEA/COFFEE	EORESTRY COMMUNITY	SALT-PAN WORKERS
A. CONTEXI	A. CONTEXT OF THE COMMUNITY	TΥ				
Education levels	Relatively low. In Ganjam, men have not completed Class 10, while women have studied up till class 5 to Class 10	Very limited. Little formal education	Moderate. Many have completed Class 12 and some are even graduates	Most community members have completed primary school education. There is a growing number of senior school graduates in the current generation.	Limited. Women have studied up till Class 8 to Class 10. Men have studied up till Class 5 and Class 10.	Little exposure to formal education. Both men and women have studied up till Class 8 to Class 10.
Economic context:	Fishing seems to be a stable source of income, with the men being the breadwinners in both Thoothukudi and Ganjam and the women running the household. However, some Thoothukudi women engage in daily work and earn them $\gtrless 500$ to $\oiint$ 1,000 per day, because their husbands DO NOT provide monetary support.	Members of this community work near riverbanks for 6-8 months and live in accommodations provided by kiln owners. Often, 4 to 5 families share amenities such as share amenities such as store. Both men and women work but have different tasks. Pregnant women also work until the final stages of their pregnancy.	Both men and women work in farms (sometimes on their own land and other times on another landowners' farm). In Basti, however, only the men work in farms.	Mostly men work in the tea gardens, but some women are also employed as tea pluckers, especially in Jalpaiguri. While the precise income is unknown, members of the community take up alternative jobs such as electricians and masonry to earn an additional Rs 600 per day.	Forestry is not a viable source of income to solely rely on as activities are limited in protected forest areas. Men make mahua from mahua fruits and flowers during the February to April season and earn up to $\overline{7}$ 1,000- $\overline{7}$ 2,000 per day during this time. Women in the community engage in adjacent jobs like gathering leaves and making disposable utensils that are sold to contractors for as low as $\overline{7}$ 200 for $\overline{7}$ 1,000 each.	Even as the community's income is low, its members do not engage in activities other than working in salt pans. Men have different jobs, with some collecting salt and others driving vehicles. Daily wages range from $\stackrel{?}{=}$ 800 to $\stackrel{?}{=}$ 1,500, depending upon the task. Women stay at home due to strict patriarchal beliefs and are not very educated due to it.

Go	Overall underst		Limit	CON
Good food	Overall understanding	PERCEPTI	Limitations	COMMUNITIES
<b>Thoothukudi-</b> All food and fruits. <b>Ganjam-</b> Horlicks, eggs, Bournvita, <i>Santula</i> , <i>Dalma</i>	Good. Aware of what is nutritious.	PERCEPTION OF NUTRITION	Prominent patriarchy	FISHERMAN
Gram, pulses, vegetables, almond, Horlicks	Very limited. Food is consumed for sustenance.		Child labor is also common in this community, with children as young as 10 years working in mud houses, there are limited amenities, leading to open defecation.	BRICK-FIELD WORKERS
<b>Basti-</b> Eggs, dry fruits, fruits, Horlicks, Bournvita <b>Prabhani-</b> Fruits, vegetables, milk products	Good. Aware of what is nutritious.		In Visakhapatnam, the women are underpaid. There is no insight into income levels in Parbhani.	SMALLHOLDER FARMERS/ FIELD LABORERS
Rich in vitamins, minerals, and fiber. Fruits, milk and dairy products, lentils, pulses, chickpea, eggs, fish and poultry, and dry fruits and nuts.	Limited knowledge			TEA/COFFEE PLANTATION WORKERS
Maar bhaat, jaggery, pomegranate.	Low. The purpose of food is sustenance, not intake of nutrition.		Men engage in daily wage work through the year to supplement income. They work as helpers at mechanic shops or as masons repairing or building small structures/terraces/ homes in adjacent urban areas. The lack of stable income makes it difficult for members of the community to provide food consistently for all meals, leading to limited availability of food items and resources.	FORESTRY
Dry fruits and nuts, vegetables, and sweets.	Community knowledge and YouTube		The respondents were keen on buying gold jewelry, with the women decked up all the time. Even though their income levels are low, the community's focus is on showing their social status rather than investing in healthy food and eating well. Most members are from scheduled castes and scheduled tribes. We observed strong discrimination against the community. Child labor is also prevalent.	SALT-PAN WORKERS

COMMUNITIES		BRICKFIELD	A C C C C C C C C C C C C C C C C C C C	TEA/COFFEE	在	SALT-PAN WORKERS
Bad food	Alcohol	Chana dal during lactation. Potato and brinjal during pregnancy.	<b>Visakhapatnam-</b> Packaged foods	Processed foods, too much or too little of anything is not recommended.	Mahua	Zarda (chewing tobacco) and vegetables sold in markets.
Contradictions, if any	Egg is considered healthy for pregnant women in Thoothukudi but harmful for pregnant women in Ganjam	Eggs are right for children but not adults.			Children are given whatever they ask for in terms of food.	
C. FOOD CO	C. FOOD CONSUMPTION - ROUTINE & ITEMS	JTINE & ITEMS				
Number of meals	At least two meals a day – morning and evening – with snacks.	At least two meals a day, with most households eating three meals.	At least two meals a day – morning and evening – with snacks.	At least two meals a day – morning and evening – with snacks.	Meal prepared in the morning and consumed through the day – breakfast, lunch, and dinner.	Respondents said meals vary between two or three times a day.
Timings	<i>Thoothukudi-</i> Meals are cooked as early as 3 am. <i>Ganjam-</i> Breakfast is served around 6 am.	Early morning, afternoon, evening.	<b>Basti-</b> Breakfast is served around 6 am, lunch at 1 pm, snacks at 5 in the evening, and dinner at 7 pm. Pregnant and lactating women eat dinner at 10 pm. <b>Visakhapatnam-</b> Breakfast is served around 7 am and lunch or dinner around 4 pm.	Jalpiguri- Breakfast is cooked at 4 am and lunch or dinner at 4 pm. <i>Nilgiris-</i> Breakfast is served at 6 am, lunch at 4 pm, and dinner at 6 pm.	Early morning, afternoon, and evening.	Breakfast is served at 10 am and tiffin, lunch, and dinner in served in the evening.

items	COMMUNITIES
<ul> <li>Ganjam- Breakfast: Vada or Idli, biri chakuli (dosas), or mandia idly (ragi idly).</li> <li>Lunch: Dal (kolatha, urad, arhar, and moong), saag and rice, double cooked rice with dal and vegetables, or Santula.</li> <li>Snack : Leftovers or 'tiffins' (light snacks such as fritters) and tea.</li> <li>Dinner: A full fresh meal of rice, fish, prawn curry, and vegetables. In vegetarian households, dal, rice, and seasonal vegetables.</li> <li>Thoothukudi- Breakfast/snack: Leftovers, bonda with tea, or idly purchased from local vendors.</li> <li>Lunch: This meal is optional and may include dal, rice, and egg fry. Children get their lunch during mid-day meals at schools.</li> <li>Dinner. It is the only well-rounded and planned meal containing fish curry, rice, and vegetables like spinach.</li> </ul>	FISHERMAN COMMUNITY
<ul> <li>Breakfast: Tea without milk, before leaving for work, around 6 am.</li> <li>Lunch: Rice and onion and chilly paste that the community members carry with them to work.</li> <li>Snack: Tea</li> <li>Dinner: Rice with saag or a vegetable. Leftovers are eaten the next day, while rice is immersed in water.</li> <li>Drink: Maari ot leftover water from cooking rice, 4 to 5 times a day.</li> </ul>	BRICK-FIELD WORKERS
<ul> <li>Basti- Breakfast: Dal, roti, and vegetables.</li> <li>Lunch: Rice and dal.</li> <li>Snack: Kachori, chakhli, Maggi, pasta, chowmein, or <i>halwa</i>.</li> <li>Dinner: Vegetarian households eat vegetables, rice, and dal. They also consume poori sometimes. In non-vegetarian homes, members eat egg, chicken, or fish.</li> <li>Parbhani- Breakfast: Roti and vegetables.</li> <li>Lunch: Roti and vegetables.</li> <li>Snack: Poha and khichdi.</li> <li>Dinner: Dal and rice or chapati and vegetables.</li> <li>Visakhapatnam- Lunch/dinner: Chapati, porridge, rice, vegetable, or dal.</li> </ul>	SMALLHOLDER FARMERS/ FIELD LABORERS
Jalpaiguri: Breakfast and lunch: Rice or roti with pulses and a vegetable side dish. The community members also sometimes eat homemade pasta and noodles. Snack: Adults drink in tea with biscuits, while children drink mike mixed with a health drink powder and are also served light snacks like chips or Maggi instant noodles. Dinner: Rice and vegetable side dish accompanied by dal or a non-vegetarian curry (fish or poultry). Milgiris- Breakfast: Idly or dosas with tea or coffee. Lunch: Rice and pulses or vegetables. Snack: Biscuits or tidbits with tea or coffee. Dinner: Rice, different variety of pulses, and vegetables.	TEA/COFFEE PLANTATION WORKERS
<ul> <li>Breakfast: Maar bhaat (rice cooked with excess water – with the water retained for bulk and nutritional value). It is the staple dish of the community.</li> <li>Lunch or dinner: Dal, tomato chutney, or ground pepper paste. Men are often not present at home for lunch.</li> <li>On some days of the week, the community members eats brinjal, potato, pointed gourd, spinach, cabbage, etc., cooked in mustard oil.</li> </ul>	FORESTRY
Breakfast and lunch: Bajrey ki roti and onion chutney. Dinner: Bajrey ki roti and dal or chutney.	SALT-PAN WORKERS

COMMUNITIES	FISHERMAN	BRICK-FIELD WORKERS	SMALLHOLDER FARMERS/ FIELD LABORERS	TEA/COFFEE	FORESTRY COMMUNITY	SALT-PAN WORKERS
Infants 0-6 months	Exclusively breastfed.	Exclusively breastfed.	Exclusively breastfed.	Exclusively breastfed.	Exclusively Breastfed	<i>Bajrey ka doodh</i> , goat's milk
6-24 months	Breastfed till children are 3 years old. Fish, eggs, beetroot, spinach, and carrot.	Same food as what is served to other members of the household after the child learns to walk, walk. Spices are toned down from the dish before feeding the child.	<b>Basti-</b> Semi-solid foods like khichdi and dal ka pani are fed along with breastmilk. <b>Parbhani-</b> Boiled potatoes, carrots, stock, dal ka pani, upma, and sheera. <b>Visakhapatnam-</b> Children are fed rice, eggs, dal, and leafy vegetables along with breastmilk.	Jalpaiguri- Geela chawal bhat, Cerelac, biscuits dipped in milk, khichdi, soft rotis, boiled apples, bananas, Litto. Nilgiris- Ragi porridge, rice, dal, carrots and green vegetables, nurai, and reya.	Breastfeeding till as long as possible – up to 3 years. oods not introduced before the child turns one year old. Foods like <i>maar</i> <i>bhaat</i> , watery <i>dal</i> , and jaggery are occasionally introduced to the child.	<i>Bajrey ki roti</i> and vegetables, bread, and milk.
2-5 years	Rice with dal, carrots, beetroot, spinach, fish, or eggs, as well as seasonal fruits. Packaged food like chips and biscuits.	Same food as what is served to other members of the household after the child learns to walk. Spices are toned down from the dish before feeding the child.	<b>Basti-</b> Semi-solid food <b>Parbhani-</b> Same food as everyone else with limited spices. <b>Visakhapatnam-</b> Same meal as what is served to adults.	Jalpaiguri- diet aligns with that of others in the family. Milk, <i>ghee</i> , fruits, Complan, and Horlicks. <i>Nilgiris</i> - Green vegetables, non- vegetarian dish, rice, fruits, and packaged food.	Same meal and what is cooked for everybody else in the household. Occasionally, goat's milk.	<i>Bajrey ki roti</i> and vegetables with extra <i>gh</i> ee. Chips, chocolates, and ice cream.
Pregnant women	<i>Thoothukudi:</i> <i>Pomegranat</i> e, apple, eggs, fish, and chicken. <i>Ganjam:</i> <i>Santula</i> (native to the region), papaya, chuna maas, fruits, milk, and chicken.	Same food cooked for everybody else in the household.	<b>Basti-</b> 3 meals of their choice. <b>Parbhani-</b> More vegetables, fruits, milk, and coconut water. <b>Visakhapatnam-</b> Mutton, beetroot, carrots, chicken, rice, dal, and vegetables.	Jalpaiguri- Dry fruits, fruits, milk, dal, rice, roti, and Horlicks for mothers Nilgiris - Beetroot, carrots, spinach, dal, fish, chicken, and drumstick leaves.	Anything they crave and ask for. Horlicks is given to the pregnant woman in more educated/financially stable homes.	<i>Bajrey ki roti</i> , vegetables, and goat's milk.

Lactating women Diversity in diet: Food groups included and excluded	COMMUNITIES
<ul> <li>Thoothukudi- Emphasis is on beetroot juice.</li> <li>Ganjam- Same diet as that of pregnant women.</li> <li>Thoothukudi- Staple: Fish, rice, vegetables, millet, and idly/dosa.</li> <li>Occasional: Nuts, dry fruits, crab, and prawns. Rare: Sweets like papayasam and sewaiyya.</li> <li>Ganjam- Staple: Dal, roti, vegetables, rice, and fish. Occasional: Papaya, apple, prawns, and crabs. Rare: Reetha, kheer, non- vegetarian dishes.</li> </ul>	FISHERMAN COMMUNITY
Same as everyone else in the household. Staple: Rice and pulses cooked in mustard oil. Occasional: Eggs, chicken, and fish. Rare: <i>Atta, halwa</i> , all- purpose flour, and poori.	BRICK-FIELD WORKERS
Same diet as pregnant women, with the addition of: <b>Basti-</b> Chana water is considered good for lactating mothers. <b>Parbhani-</b> Staple: Wheat roti, <i>Bajrey</i> <i>ki roti</i> , vegetables, and dairy products. Occasional: Apple, banana, mutton, and chicken. Rare: Dry fruits and sweets. <b>Basti-</b> Staple: Rice, roti, dal, and vegetables. Occasional: Apple, banana, fish, chicken, and Maggi instant noodles. <b>Visakhapatnam-</b> Staple: Rice porridge, <i>ragi</i> malt, onion, tomato, carrots, beetroot, and bitter gourd. Occasional: Apples, pomegranate, fish, and chicken. Rare: Chicken <i>biryani</i> and mutton.	SMALLHOLDER FARMERS/ FIELD LABORERS
Jalpaiguri- Same food as that of pregnant women, country chicken, and chicken soup. Nilgiris- Same food served to pregnant women and rasam. Staple: Dal, <i>bhat</i> , and vegetables. Occasional: Non- vegetables, millet, and <i>ragi.</i> Occasional: Dry fruits and non-vegetarian dishes. Rare: Local sweets like muruku.	TEA/COFFEE PLANTATION WORKERS
No special food is cooked for lactating women. Oil and spice are used in limited quantities so as not to contaminate breastmilk. Staple: Rice with dal cooked in mustard oil. Occasional: Vegetables like potato and brinjal cooked with spices and mustard oil. Rare: Fruits such as apple and banana.	
Bajrey ki roti and vegetables. Staple: Mutton, wheat, bajra, <i>chane ki dal</i> , onion/ tomato/red chilly <i>sabzi</i> , jaggery, and <i>chaas</i> . Occasional: Mutton. Rare: Fruits and sweets like laddoos.	SALT-PAN WORKERS

COMMUNITIES	FISHERMAN	BRICKFIELD	SMALLHOLDER FARMERS/ FIELD LABORERS	TEA/COFFEE	在	SALT-PAN WORKERS
Highlights/best practices/ call out		Apart from breastmilk, there is no concept of milk in the community. This is why they are not able to identify dairy products.	There is diversity in the diets of the community members and access to FLWs. <b>Parbhani:</b> Pregnant women are given preference in what is cooked, while in Visakhapatnam, young children's diets are given preference. <b>Basti:</b> The community members do not eat bajra as it is not available in the region. Even though barley is available in the region. Even though barley is available in fimited quantities, the members make and eat Sattu. <b>Visakhapatnam:</b> No food is consumed after 5 pm.		The community members have learned that submerging vessels with cooked food in water extends its longevity and keeps it from going bad a technique they learned from cooking Maar bhaat.	Diet diversity is severely limited.
D. DECISIOI	D. DECISION-MAKING – PREPARATION, FEEDING	RATION, FEEDING				
Overall decision- making	Women	Women	<b>Basti-</b> Mother-in-law. <b>Parbhani-</b> Women. <b>Visakhapatnam-</b> Women.	Women	Women	Mother-in-law
Preparation – timings and person	2 fresh meals are prepared (morning and evening) by the mother or wife.	Cooked once or maximum twice a day by the woman at 4 am.	Morning and evening by women.	Jalpigur- Women prepare the food thrice 4 am, 4 pm, and in the evening. <i>Nilgiris-</i> Women prepare the food thrice 6 am, 4 pm, and 6 pm.	2 fresh meals are prepared (morning and evening) by the mother or wife.	Prepared in the morning by women.

6-24 months	Infants 0-6 months	Fuel, storage and hygiene	COMMUNITIES
Breastmilk, fish, eggs, beetroot, spinach, and carrots.	Breastmilk	<b>Ganjam-</b> Firewood and traditional choolah. Refrigerator is used to store food. <b>Thoothukudi-</b> Gas and firewood is used to cook food. Due to lack of access to a refrigerator, families prioritize minimizing waste and leftovers, particularly for perishable items.	FISHERMAN
Same food as what is cooked for other members of the household but with fewer spices.	Breastmilk	<i>Choolha</i> s are shared between multiple families. No storage option to stock food, and poor hygiene standards.	BRICK-FIELD WORKERS
<b>Basti</b> - Semi solid foods like khichdi and dal ka pani are fed along with breastmilk. <b>Parbhani</b> - Boiled or mashed potatoes, <i>halwa</i> , carrots, stock, dal ka pani, upma, and sheera. <b>Visakhapatnam</b> - Rice, eggs, dal, and leafy vegetables are fed along with breastmilk.	Breastmilk		SMALLHOLDER FARMERS/ FIELD LABORERS
Jalpaiguri- Geela chawal bhat, Cerelac, biscuits dipped in milk, khichdi, soft rotis, boiled apples, bananas, and Lito. Nilgiris- Ragi porridge, rice, dal, carrots, greens vegetables, nurai, and reya.	Breastmilk	Jalpaiguri- gas stover Access to refrigerators Nilgiris: Firewood for time consuming foods, otherwise LPG Stored in buckets, no refrigerators	TEA/COFFEE PLANTATION WORKERS
Milk mashed with rice.	No special food is prepared.	Both gas and wood-fired choolahs are used as per availability. Hygiene is compromised due to practices like open defecation.	FORESTRY
<i>Bajrey ki roti</i> and vegetables.	Bajre ka doodh		SALT-PAN WORKERS

COMMUNITIES	FISHERMAN COMMUNITY	BRICK-FIELD WORKERS	x c SMALLHOLDER FARMERS/ FIELD LABORERS	TEA/COFFEE	FORESTRY COMMUNITY	SALT-PAN WORKERS
2-5 years	Rice with dal, carrots, beetroot, spinach, fish, or eggs and seasonal fruits.	Same food as what is cooked for other members of the household but with fewer spices.	<b>Basti-</b> Semi solid food. <b>Parbhani-</b> Same food that is served for other members of the household but with less use of spices. <b>Visakhapatnam-</b> Same meal served to adults.	Jalpaiguri- Diet aligns with that of others in the family. Milk, ghee, fruits, Complan, and Horlicks. <i>Nilgiris</i> - Green vegetables, non- vegetarian dishes, rice, fruits, and packaged food.	Maal bhaat	<i>Bajrey ki roti</i> and vegetables with extra <i>ghee</i> .
Pregnant women	<i>Thoothukudi-</i> Pomegranate, apple, eggs, fish, and chicken. <i>Ganjam – Santula</i> , papaya, chuna maas, fruits, milk, and chicken.	No special food is prepared for pregnant women.	<b>Basti-</b> 3 meals according to the choice of the pregnant woman. <b>Parbhani-</b> More vegetables, fruits, milk, and coconut water. <b>Visakhapatnam-</b> Mutton, beetroot, carrots, chicken, rice, dal, and vegetables.	Jalpaiguri- Dry fruits, fruits, milk, dal, rice, roti, and Horlicks for mothers <i>Nilgiris</i> - Beetroot, carrots, spinach, dal, fish, chicken, and drumstick leaves.	Tea without milk, apples, pomegranate, drumsticks, beetroot, carrots, spinach, and dal.	<i>Bajrey ki roti</i> , vegetables, and goat's milk.
Lactating women	<b>Thoothukudi-</b> The community lays emphasis on beetroot juice for lactating women. <b>Ganjam-</b> Same food as what is cooked for pregnant women.	No special food is prepared for lactating women.	Same food that is prepared for pregnant women, with the addition of: <b>Basti-</b> Chana water is considered good for lactating women. <b>Parbhani-</b> More pulses for lactating women.	Jalpaiguri- Same food that is prepared for pregnant women, country chicken, and chicken soup. Nilgiris- Same food that is prepared for pregnant women, with the addition of rasam.	Rasam, drumsticks, beetroot, carrots, spinach, and dal.	<i>Bajrey ki roti</i> , and vegetables.

Budget and item planning	Location of purchase	Frequency	Overall decision- making process and person in- charge	E. DECIS	Challenges	COMMUNITIES
g from daily wages. Fish is consumed every day.	<i>Kirana</i> stores and local markets.	On demand.	<b>Thoothukudi-</b> Women. <b>Ganjam-</b> Mother-in-law or father-in-law.	DECISION-MAKING - PURCHASES		IES FISHERMAN COMMUNITY
The community prefers to cook poori-saag with vegetables because it is an inexpensive dish.	Local markets, <i>haats</i> , and <i>kirana</i> stores.	Weekly, based on the day wages are paid.	Men	IASES	Very limited knowledge of nutritious food.	BRICK-FIELD WORKERS
Based on the number of family members in the household. The community members compromise in case there is shortage of money or food.	<b>Basti-</b> Fields and <i>mandi</i> . <b>Parbhani-</b> Pimpri. <b>Visakhapatnam-</b> Weekly market and Chintapalle.	<b>Basti-</b> Twice a week. <b>Parbhani-</b> Every 15 days. <b>Visakhapatnam-</b> Sporadic or every 15 days.	<b>Basti-</b> Mother-in-law and father-in-law. <b>Parbhani-</b> Women. <b>Visakhapatnam-</b> Women.			SMALLHOLDER FARMERS/ FIELD LABORERS
	Haats, local markets, <i>kirana</i> stores	Every 2-3 days.	Women			TEA/COFFEE PLANTATION WORKERS
Purchases depend upon the availability of money, with no diversity in the food consumed.	<i>Kirana</i> stores and hatiyas or local markets.	Sporadic	Men or mother-in-law.		There is limited focus on the nutritious value of food. They community members also do not take advice from AWWs and consume inconsistent quantities of food.	FORESTRY
	Local markets.	On demand	Mother-in-law and father- in-law.		Diet diversity is severely limited.	SALT-PAN WORKERS

	R		C ↔	- SB	(FILL)	
COMMUNITIES		BRICKFIELD WORKERS	SMALLHOLDER FARMERS/ FIELD LABORERS	TEA/COFFEE PLANTATION WORKERS		SALT-PAN WORKERS
PDS/ THR	Yes	No	Yes	Yes	Yes	No
Process of purchase	Thoothukudi- Men give money to the women, who decide what and where to buy food items from. The men, on the other hand, are responsible for purchasing essentials items such as oil, sugar, tea, and grains from their preferred shops or central markets on the way back from work. <b>Ganjam</b> - It is usually the father-in-law who steps out to buy groceries, occasionally accompanied by other male members of the household returning from work.	Every Monday from local markets and <i>kirana</i> stores.	<b>Basti</b> - The mother-in- law and father-in-law go to purchase food items, with the daughter- in-law telling them the requirements. <b>Parbhani-</b> The women tell the men what to buy, who then purchases the food items. The men list down what they need to buy and call the woman in case they forget something. <b>Visakhapatnam-</b> The women tell the men what to buy, who then purchases the fown what they need to buy and call the woman in case they forget something.	Women tell their husbands what to buy, who then go out and make purchases.	Male members of the family and the mother- in-law usually go to the hatiya to purchase food items.	Women list down the requirements as the men go out and make purchases.
Priorities: Which items and for whom?		Weekly: Ration, dal, and <i>sabzi.</i> Once in 2 weeks: Rice. Occasionally: Oil.	<b>Basti-</b> The community members do not purchase essential items but grow them at their homes.	Vegetables and fruits, followed by whole grains and staples like fish and poultry, and finally snacks.	While the community consumes food they grow at home, they also purchase vegetables based on the availability of funds.	
Highlights/ best practices	<i>Ganjam</i> - Women have significant decision- making authority and knowledge.		No wastage of food.	The shops offer a credit system allowing effective management of expenses.		

COMMUNITIES Challenges	FISHERMAN COMMUNITY	BRICK-FIELD WORKERS Lack of access to essential documents like ration cards.	SMALLHOLDER FARMERS/ FIELD LABORERS	TEA/COFFEE PLANTATION WORKERS	FORESTRY COMMUNITY Money is spent on packaged foods.
F. MARKETS		ration cards.			morrey is spering packaged foods
Number of <i>kirana</i> stores in the village	<b>Thoothukudi-</b> 2 stores. <b>Ganjam-</b> Given that Ganjam is a Notified Area Council, it has 6 to 7 stores. The mainstay is the sale of fish.	<i>Howrah-</i> None nearby. The closest store is in an upscale residential locality nearby, where community members feel uncomfortable visiting.	<b>Basti-</b> 2 stores. Parbhani-1 store. <b>Visakhapatnam-</b> None	<i>Nilgiris-</i> None <i>Jalpaiguri-</i> Series of <i>kirana</i> stores in the village.	<b>Deoghar:</b> 2 kirana stores located next to each other.
Markets nearby – fixed, <i>haats</i> , etc., and distance	Local vegetable vendors, shacks, and weekly bazaars. Ganjam- All markets are located within a 15-minute distance. Toothukudi- Markets are located 8 km away.	<i>Haats</i> , Howrah bally bazaar, and weekly markets within a kilometre's distance.	<b>Basti-</b> Mandi (local market) twice a week, located on the outskirts of the village. <b>Parbhani-</b> Pimpri, located 200 meters from the temple. <b>Visakhapatnam:</b> Weekly markets (every Wednesday) and chintapalli (town market)	Jalpaiguri- Sunday market, champaguri market, and <i>haats</i> spread across an area expanding 600-700 meters with multiple entrances. Nilgiris- Limited access to markets as they are located 19-20 km away.	Weekly <i>hatiya</i> or <i>haat</i> at the intersection of 2-3 villages, located around 2 km away. Local markets with multiple stores in Burhai block, located 5-6 km away. Large wholesale markets in Deoghar city, located 35 km away.

COMMUNITIES	FISHERMAN COMMUNITY	BRICKFIELD WORKERS	A C C C C C C C C C C C C C C C C C C C	TEA/COFFEE	FORESTRY COMMUNITY	SALT-PAN WORKERS
Most sold items at <i>kirana</i> stores	Staple foods like rice, flour, pulses, milk powder, fish masala, and hair accessories.	Rice, oil, biscuits, and dairy products.	<ul> <li>Basti- Detergents, Parle-G, namkeen chips, soya bean, tobacco products such as loose tobacco leaves, cigarettes, and gutka, and pooja items like agarbati.</li> <li>Parbhani- Oil, sugar, chocolates, wheat, buffalo milk, eggs, oils, flattened rice, nylon chiwada, Parle-G, Patanjali, and Krack Jack biscuits, toast, rice, and beetle nuts.</li> <li>Patanjali, and Krack Jack biscuits, toast, rice, and beetle nuts.</li> <li>Misakhapatnam- Aashirvad atta, Ganesh idly rava and upma rava batter, 5 kg rice bags, pulses, spices such as cinnamon and cardamom, boondi mixture, Chakra Gold tea packets, lentils, Bengal gram dal, roasted Bengal gram, ground nuts, pulses, and coconut oil (no other oil is sold).</li> </ul>	Dal, rice, oil, spices, snacks, biscuits, beverages like tea and coffee, milk, yogurt, bread, eggs, and basic stationery items.	Rice, pulses (pigeon peas have the highest demand), oil, sugar, flour, punjabi tadka, liquor, and tobacco.	Ghee, oil, sugar, rice, and tobacco.
Least sold items			<b>Basti-</b> Milk, khoya, <i>paneer</i> , Maggi instant noodles, wheat flour, eggs, meat, and fish. <b>Parbhani-</b> Dry fruits.		Eggs, <i>atta</i> , and soyabean.	Dry fruits and milk.

Factors impacting <i>kirana</i> store owners	COMMUNITIES
Several new shops have emerged post the COVID-19 pandemic, ensuring healthy competition.	FISHERMAN
The owner of a <i>kirana</i> store in Howrah purchases products from the weekly bazaar, Sheoraphuli, or even as far as Kolkata for candy and chocolates. There is less consumption of aerated beverages and packaged snacks than before.	BRICK-FIELD WORKERS
Storing items for longer, thereby keeping inventory based on demand. <b>Parbhani-</b> Sale of tobacco products has reduced after the COVID-19 pandemic. <b>Visakhapatnam-</b> No beedi or tobacco products are allowed to be sold due to restrictions from officials.	SMALLHOLDER FARMERS/ FIELD LABORERS
	TEA/COFFEE PLANTATION WORKERS
Fast-moving consumer goods (FMCG) brands have penetrated the market but are considered by the community as being expensive.	FORESTRY
Shopkeepers have stopped stocking eggs and milk since people own livestock and do not purchase it from stores.	SALT-PAN WORKERS

## JOIN US. TOGETHER, WE CAN!

If you are interested in knowing more, please follow us on social media:



For more information, visit us at india.vitaminangels.org You can also write to us at contact india@vitaminangels.org