



# BASELINE SURVEY REPORT

August 2026

## Samposhan Project

*Transregional and Gender-Specific Strengthening of Food Security and Resilient Livelihoods*

Project 8505



**Bamori Block, Guna District • Pohri Block, Shivpuri District**

Madhya Pradesh, India

Survey period: 20 July – 14 August 2026

612 households • 38 villages • 601 children under five • 594 women

Implemented by

**Vikas Samvad Samiti (VSS)**

In partnership with

**terre des hommes Germany e.V. | Intuba (Zimbabwe programme)**

## Document Control

| Item                      | Detail                                                                                                                                                                         |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Report title              | Baseline Survey Report – Samposhan Project                                                                                                                                     |
| Project                   | Transregional and Gender-Specific Strengthening of Food Security and Resilient Livelihoods (Project 8505)                                                                      |
| Country programme         | India (partner programme: Zimbabwe)                                                                                                                                            |
| Geographic coverage       | 50 project villages across Bamori block (Guna) and Pohri block (Shivpuri), Madhya Pradesh                                                                                      |
| Survey period             | 20 July – 14 August 2026                                                                                                                                                       |
| Achieved sample           | 612 households; 601 index children aged 0–59 months; 594 women aged 15–49; 38 villages                                                                                         |
| Implementing organisation | Vikas Samvad Samiti (VSS)                                                                                                                                                      |
| Supporting organisation   | terre des hommes Germany e.V.                                                                                                                                                  |
| Prepared by               | Mr. Hanif Shaikh   Subject Matter Expert M&E, Samposhan Project – survey design, data analysis and report authorship                                                           |
| Reviewed by               | Mr. Guru Sharan Sachdev, Project Manager, Project 8505   Associate Director, Vikas Samvad Samiti, Bhopal, MP India                                                             |
| Approved by               | Mr. Sachin Kumar Jain, Director, Vikas Samvad Samiti, Bhopal, MP India                                                                                                         |
| Date of issue             | 25/08/2026                                                                                                                                                                     |
| Status of anaemia data    | Not included in this version; to be issued as an addendum once haemoglobin measurement is completed                                                                            |
| Suggested citation        | Vikas Samvad Samiti (2026). Baseline Survey Report: Samposhan Project (8505), Guna and Shivpuri districts, Madhya Pradesh. VSS / terre des hommes Germany and Intuba Zimbabwe. |
| Contact                   | hanif@vssmp.org / +91 – 9425306465   <a href="mailto:office@vssmp.org">office@vssmp.org</a> / 0755 – 4252789                                                                   |

| Abbreviation/Acronym | Full Form                                                                      |
|----------------------|--------------------------------------------------------------------------------|
| <b>AWW</b>           | Anganwadi Worker (Front Line Worker of Women and Child Development Department) |
| <b>BMI</b>           | Body Mass Index                                                                |
| <b>CED</b>           | Chronic Energy Deficiency                                                      |
| <b>DDS</b>           | Dietary Diversity Score                                                        |
| <b>DPDP Act</b>      | Digital Personal Data Protection Act                                           |
| <b>FGD</b>           | Focus Group Discussion                                                         |
| <b>HAZ</b>           | Height-for-Age Z-score                                                         |
| <b>HDDS</b>          | Household Dietary Diversity Score                                              |
| <b>HFIAS</b>         | Household Food Insecurity Access Scale                                         |
| <b>IYCF</b>          | Infant and Young Child Feeding                                                 |
| <b>KII</b>           | Key Informant Interview                                                        |
| <b>MAD</b>           | Minimum Acceptable Diet                                                        |
| <b>MAM</b>           | Moderate Acute Malnutrition                                                    |
| <b>MDD-W</b>         | Minimum Dietary Diversity for Women                                            |
| <b>MMF</b>           | Minimum Meal Frequency                                                         |
| <b>MMFF</b>          | Minimum Meal Frequency for Females                                             |
| <b>MUAC</b>          | Mid-Upper Arm Circumference                                                    |
| <b>NRC</b>           | Nutrition Rehabilitation Centre                                                |
| <b>PPS</b>           | Probability Proportional to Size                                               |
| <b>PSU</b>           | Primary Sampling Unit                                                          |
| <b>SAM</b>           | Severe Acute Malnutrition                                                      |
| <b>TPDS</b>          | Targeted Public Distribution System                                            |
| <b>WAZ</b>           | Weight-for-Age Z-score                                                         |
| <b>WHZ</b>           | Weight-for-Height Z-score                                                      |
| <b>WDDS</b>          | Women's Dietary Diversity Score                                                |

## Contents

|                                                               |    |
|---------------------------------------------------------------|----|
| Document Control .....                                        | 2  |
| Acknowledgements .....                                        | 8  |
| Abbreviations and Acronyms .....                              | 9  |
| Glossary of Technical Terms .....                             | 11 |
| List of Tables .....                                          | 13 |
| Why this survey was done.....                                 | 15 |
| What the survey found.....                                    | 15 |
| Five things this baseline establishes .....                   | 16 |
| The district picture.....                                     | 16 |
| Matters requiring immediate attention .....                   | 16 |
| What should happen next .....                                 | 17 |
| Is this baseline fit for purpose? .....                       | 17 |
| 1.1 About the Project.....                                    | 18 |
| 1.2 Who the Project Works With .....                          | 18 |
| 1.3 The Nutrition Situation in Guna and Shivpuri.....         | 19 |
| 1.4 What the Project Aims to Achieve .....                    | 20 |
| Project objective .....                                       | 20 |
| Objective-level indicators and targets .....                  | 20 |
| The four sub-objectives .....                                 | 20 |
| 1.5 Why This Baseline, and What It Covers .....               | 21 |
| Timing: what "baseline" means here .....                      | 21 |
| What the baseline measures.....                               | 21 |
| 1.6 How to Read This Report.....                              | 22 |
| 2.1 How the Indicators Fit Together.....                      | 23 |
| 2.2 Primary Indicators .....                                  | 24 |
| Child anthropometry – stunting, wasting and underweight ..... | 24 |
| Household Dietary Diversity Score (HDDS) .....                | 24 |
| Minimum Dietary Diversity for Women (MDD-W) .....             | 24 |
| Minimum Acceptable Diet (MAD) – children 6–23 months .....    | 24 |
| 2.3 Secondary Indicators .....                                | 25 |
| Household Food Insecurity Access Scale (HFIAS).....           | 25 |
| Women’s nutritional status (BMI).....                         | 25 |
| Anaemia .....                                                 | 25 |
| 2.4 Contextual Modules .....                                  | 26 |
| 2.5 Indicator Reference Table .....                           | 26 |
| 2.6 Two Points on Interpretation .....                        | 27 |
| A 24-hour recall describes a population, not a household..... | 27 |
| What the baseline can and cannot settle .....                 | 27 |
| 3.1 Study Design .....                                        | 28 |

|                                                                    |    |
|--------------------------------------------------------------------|----|
| 3.2 Sample Size .....                                              | 28 |
| 3.3 Sampling Units .....                                           | 29 |
| 3.4 Village Selection.....                                         | 29 |
| Intervention villages .....                                        | 29 |
| Control villages .....                                             | 29 |
| 3.5 Is the Control Group Comparable? Evidence from the Survey..... | 30 |
| Three differences that do exist .....                              | 30 |
| 3.6 Household Selection .....                                      | 31 |
| 3.7 Survey Instruments.....                                        | 31 |
| 3.8 Training and Fieldwork .....                                   | 32 |
| 3.9 Data Processing and Quality Assurance.....                     | 32 |
| At the point of entry .....                                        | 32 |
| In the field.....                                                  | 32 |
| During analysis.....                                               | 32 |
| 3.10 Haemoglobin Testing.....                                      | 33 |
| 3.11 Ethics .....                                                  | 33 |
| Referral of identified cases.....                                  | 34 |
| 3.12 Limitations .....                                             | 34 |
| 4.1 Achieved Sample .....                                          | 35 |
| 4.2 Who Answered the Questionnaire .....                           | 35 |
| 4.3 Social Composition .....                                       | 35 |
| 4.4 Education .....                                                | 36 |
| 4.5 Households and Children.....                                   | 36 |
| 4.6 Household Circumstances .....                                  | 37 |
| 4.7 Were the Two Arms Comparable? .....                            | 37 |
| 4.8 Summary .....                                                  | 38 |
| 5.1 Household Dietary Diversity (HDDS).....                        | 39 |
| 5.2 Women’s Dietary Diversity (MDD-W).....                         | 41 |
| 5.3 Young Child Feeding (MAD).....                                 | 41 |
| 5.4 Household Food Insecurity (HFIAS).....                         | 42 |
| What households said: why food feels secure .....                  | 43 |
| The constraint is money, not knowledge.....                        | 44 |
| 5.5 Packaged and Fried Snack Foods.....                            | 44 |
| Why households buy them.....                                       | 45 |
| Biscuits are a different case.....                                 | 45 |
| What this means for the project .....                              | 45 |
| 5.6 Summary .....                                                  | 46 |
| 6.1 Stunting.....                                                  | 47 |
| 6.2 Underweight .....                                              | 48 |
| 6.3 Wasting .....                                                  | 48 |

|                                                                   |    |
|-------------------------------------------------------------------|----|
| 6.4 Women's Nutritional Status.....                               | 49 |
| 6.5 Anaemia .....                                                 | 50 |
| 6.6 Infant and Young Child Feeding Practices .....                | 50 |
| 6.7 Summary .....                                                 | 51 |
| 7.1 Drinking Water.....                                           | 52 |
| 7.2 Agriculture .....                                             | 53 |
| 7.3 Kitchen Gardens.....                                          | 54 |
| 7.4 Income and Migration .....                                    | 55 |
| 7.5 Gender and Household Decision-Making .....                    | 56 |
| 7.6 Social Protection .....                                       | 57 |
| 7.7 Summary .....                                                 | 58 |
| 8.1 Are the Two Arms Comparable? .....                            | 59 |
| 8.2 The District Story: Different Structures, Same Outcomes ..... | 60 |
| 8.3 What Is Actually Driving Undernutrition Here.....             | 61 |
| 8.4 What the Qualitative Findings Add .....                       | 62 |
| Where the two sources do not agree.....                           | 63 |
| 8.5 How These Villages Compare .....                              | 64 |
| 8.6 What Follows .....                                            | 64 |
| 9.1 What the Survey Identified .....                              | 66 |
| 9.2 Where These Cases Are .....                                   | 66 |
| 9.3 What Was Done at the Time of Measurement.....                 | 67 |
| 9.4 What Should Happen Now .....                                  | 68 |
| 9.5 Status at the Time of Reporting .....                         | 69 |
| 10.1 Where the Project Starts .....                               | 70 |
| 10.2 What the Findings Mean for the Project's Logic.....          | 70 |
| 10.3 Are the Targets Still Realistic? .....                       | 71 |
| 10.4 Is This Baseline Fit for Purpose? .....                      | 72 |
| 10.5 The Position in Summary.....                                 | 73 |
| 11.1 Programme Design and Implementation.....                     | 74 |
| 11.2 Government Engagement and Convergence .....                  | 75 |
| 11.3 Monitoring, Evaluation and the Endline .....                 | 76 |
| 11.4 VSS Management and Partners.....                             | 77 |
| 11.5 Priority Actions .....                                       | 77 |
| Annexure I – Qualitative Findings.....                            | 79 |
| I.1 Purpose and Scope .....                                       | 79 |
| I.2 Focus Groups Discussion - What Was Covered.....               | 79 |
| I.3 Key Findings .....                                            | 80 |
| I.4 Differences Between the Two Districts.....                    | 82 |
| I.5 Deeper Insights .....                                         | 83 |
| I.6 Programme Implications .....                                  | 83 |

|                                                               |           |
|---------------------------------------------------------------|-----------|
| <b>I.7 Where the Discussions and the Survey Diverge .....</b> | <b>84</b> |
| <b>I.8 Limitations .....</b>                                  | <b>85</b> |
| <b>I.9 Matters Requiring Separate Follow-Up .....</b>         | <b>85</b> |
| <b>ANNEXURE – II .....</b>                                    | <b>86</b> |

## Acknowledgements

This baseline survey was made possible by the families of Bamori and Pohri blocks who gave their time to answer a long questionnaire, allowed their children to be measured, and spoke openly in focus group discussions about matters that are not easy to discuss. Their patience and candour are the foundation of everything reported here.

We thank the Anganwadi workers, ASHA workers and Youth Group Members of the surveyed villages, who provided household listings, facilitated access, and in several cases spoke frankly about the constraints they work under. We are grateful to the Sarpanches and village committees who provided consent for the project activities as well as survey in their respective panchayats and render their unwavering support to the project teams during fieldwork.

The survey was carried out by a team of twelve project team members over four weeks in difficult field conditions, including during the monsoon. The quality of the data reported here reflects their care in measurement and their willingness to raise problems rather than work around them.

We acknowledge the support of the Women and Child Development and Health departments in Guna and Shivpuri districts, and thank terre des hommes Germany & India Office, implementation Partner Intuba, Zimbabwe for technical and financial support to the Samposhan Project.

Ms. Varsha Khatkar, Project Coordinator, Shivpuri District

Mr. Mangesh Soni, Project Coordinator, Guna District

Mr. Anaar Singh Adiwasi, Community Organizer

Mr. Kamly Kushwah, Community Organizer

Ms. Kirti Goyal, Community Organizer

Ms. Sana Khan, Community Organizer

Ms. Seema, Community Organizer

Ms. Jyoti Shinde, Community Organizer

Mr. Krupal Singh Lodha, Community Organizer

Mr. Vikas Pateliya, Community Organizer

Mr. Khagendra Raghuvanshi, Community Organizer

## Abbreviations and Acronyms

|                      |                                                                        |
|----------------------|------------------------------------------------------------------------|
| <b>ASHA</b>          | Accredited Social Health Activist                                      |
| <b>AWC</b>           | Anganwadi Centre                                                       |
| <b>AWW</b>           | Anganwadi Worker                                                       |
| <b>BMI</b>           | Body Mass Index                                                        |
| <b>CED</b>           | Chronic Energy Deficiency                                              |
| <b>CHC</b>           | Community Health Centre                                                |
| <b>CMHO</b>          | Chief Medical and Health Officer                                       |
| <b>DPDP Act</b>      | Digital Personal Data Protection Act, 2023                             |
| <b>FANTA</b>         | Food and Nutrition Technical Assistance project                        |
| <b>FAO</b>           | Food and Agriculture Organization of the United Nations                |
| <b>FGD</b>           | Focus Group Discussion                                                 |
| <b>GBV</b>           | Gender-Based Violence                                                  |
| <b>GP</b>            | Gram Panchayat                                                         |
| <b>GPDP</b>          | Gram Panchayat Development Plan                                        |
| <b>HAZ</b>           | Height-for-Age Z-score                                                 |
| <b>HDDS</b>          | Household Dietary Diversity Score                                      |
| <b>HFIAS</b>         | Household Food Insecurity Access Scale                                 |
| <b>ICDS</b>          | Integrated Child Development Services                                  |
| <b>IFA</b>           | Iron and Folic Acid                                                    |
| <b>IYCF</b>          | Infant and Young Child Feeding                                         |
| <b>JJM</b>           | Jal Jeevan Mission                                                     |
| <b>KII</b>           | Key Informant Interview                                                |
| <b>MAD</b>           | Minimum Acceptable Diet                                                |
| <b>MAM</b>           | Moderate Acute Malnutrition                                            |
| <b>MDD</b>           | Minimum Dietary Diversity (children 6–23 months)                       |
| <b>MDD-W</b>         | Minimum Dietary Diversity for Women                                    |
| <b>MMF</b>           | Minimum Meal Frequency                                                 |
| <b>MMFF</b>          | Minimum Milk Feeding Frequency                                         |
| <b>MNREGA</b>        | Mahatma Gandhi National Rural Employment Guarantee Act                 |
| <b>NFHS</b>          | National Family Health Survey                                          |
| <b>NRC</b>           | Nutrition Rehabilitation Centre                                        |
| <b>NTFP</b>          | Non-Timber Forest Produce                                              |
| <b>PDS</b>           | Public Distribution System                                             |
| <b>PHC</b>           | Primary Health Centre                                                  |
| <b>PHED</b>          | Public Health Engineering Department                                   |
| <b>PMMVY</b>         | Pradhan Mantri Matru Vandana Yojana                                    |
| <b>PPS</b>           | Probability Proportional to Size                                       |
| <b>PSU</b>           | Primary Sampling Unit                                                  |
| <b>PVTG</b>          | Particularly Vulnerable Tribal Group                                   |
| <b>PZ / UZ</b>       | Project objective / sub-objective (from the project results framework) |
| <b>RBBS</b>          | Raised Bed Bucket System                                               |
| <b>SAM</b>           | Severe Acute Malnutrition                                              |
| <b>SC / ST / OBC</b> | Scheduled Caste / Scheduled Tribe / Other Backward Class               |

|               |                                          |
|---------------|------------------------------------------|
| <b>SDG</b>    | Sustainable Development Goal             |
| <b>SHG</b>    | Self-Help Group                          |
| <b>THR</b>    | Take-Home Ration                         |
| <b>TPDS</b>   | Targeted Public Distribution System      |
| <b>UNICEF</b> | United Nations Children’s Fund           |
| <b>VSS</b>    | Vikas Samvad Samiti                      |
| <b>WASH</b>   | Water, Sanitation and Hygiene            |
| <b>WAZ</b>    | Weight-for-Age Z-score                   |
| <b>WCD</b>    | Women and Child Development (department) |
| <b>WHO</b>    | World Health Organization                |
| <b>WHZ</b>    | Weight-for-Height Z-score                |

## Glossary of Technical Terms

This glossary explains the technical terms used in this report in plain language. It is intended for readers who are not statisticians or nutritionists, and can be referred to at any point.

**Stunting** – A child who is too short for their age. Stunting develops slowly, over months and years of inadequate diet and repeated illness, and is largely irreversible after about two years of age. It is the clearest marker of long-term, chronic undernutrition.

**Wasting** – A child who is too thin for their height. Unlike stunting, wasting reflects recent and acute undernutrition – a bout of illness or a sharp drop in food intake – and can appear within weeks. With treatment it can also resolve within weeks.

**Underweight** – A child who is too light for their age. It combines chronic and acute undernutrition and does not distinguish between them. This is the measure most commonly used in Anganwadi growth monitoring.

**Severe Acute Malnutrition (SAM)** – The most serious form of wasting, carrying a high short-term risk to life. India operates a defined treatment pathway for it through Nutrition Rehabilitation Centres.

**Z-score** – A way of comparing one child against the growth of healthy children of the same age and sex. A z-score of 0 is the median of the healthy reference population. A score below –2 indicates a problem; below –3 indicates a severe one. These thresholds are set internationally by WHO, not by this project.

**WHO Child Growth Standards** – The international reference used to judge whether a child's height and weight are appropriate for their age. Published in 2006 and used worldwide, including in India's own national surveys, which allows figures from this report to be compared directly with NFHS data.

**Dietary diversity** – How many different food groups a person or household eats in a given period, normally the previous 24 hours. It matters because a diet drawn from few food groups is unlikely to supply the range of vitamins and minerals a body needs, even if it supplies enough calories.

**Household Dietary Diversity Score (HDDS)** – A count of how many of twelve food groups anyone in the household ate in the previous day, scored 0 to 12. It measures the variety of the household food supply, and therefore the household's economic access to food. It does not describe what any individual ate.

**Minimum Dietary Diversity for Women (MDD-W)** – Whether a woman aged 15–49 ate from at least five of ten defined food groups in the previous day. Below this threshold, a woman's diet is unlikely to supply adequate micronutrients.

**Minimum Acceptable Diet (MAD)** – The standard for children aged 6–23 months. A child achieves it only by meeting two or three conditions together: eating enough different food groups (minimum dietary diversity), being fed often enough (minimum meal frequency), and, if not breastfed, receiving enough milk feeds. Because all conditions must be met, MAD is the strictest of the diet measures.

**Household Food Insecurity Access Scale (HFIAS)** – Nine questions about a household's experience over the previous four weeks, moving from worrying that food will run out, through compromising on quality, to actually eating less. It measures anxiety and quantity – not nutritional quality, which is why a household can appear food secure on this scale while eating a very poor diet.

**Body Mass Index (BMI)** – Weight in kilograms divided by height in metres squared. For adults, a BMI below 18.5 indicates chronic energy deficiency – being persistently underweight for one's height.

**Anaemia** – A shortage of haemoglobin in the blood, most often caused by inadequate iron in the diet. It causes tiredness and weakness, raises risk in pregnancy and childbirth, and impairs children's development.

**Index child** – The youngest child aged 0–59 months in a household. The survey measures one index child per household, as specified in the sampling design, so that larger families do not carry disproportionate weight in the results.

**Intervention and control arms** – The intervention arm is the group of project villages. The control arm is a comparable group of non-project villages surveyed alongside them, so that change in the project villages can be compared against what would have happened anyway.

**Difference-in-differences** – The method by which project impact will be assessed at endline: the change measured in project villages minus the change measured in control villages. Only the difference between the two changes can reasonably be attributed to the project.

**Probability proportional to size (PPS)** – A sampling method in which larger villages have a proportionally greater chance of being selected, so that every child in the project area has an approximately equal chance of being included in the sample.

**Statistical significance (p-value)** – A measure of whether a difference between two groups is likely to be real or could plausibly have arisen by chance. A p-value below 0.05 is conventionally treated as indicating a real difference. Where this report describes a difference as ‘not significant’, it means the data cannot distinguish it from chance.

**Positive deviance** – An approach that identifies the households succeeding in conditions where most do not, and studies what they do differently – on the basis that a solution already working in the same village is more credible and more transferable than advice brought in from outside.

**Take-home ration (THR)** – Supplementary food provided through the Anganwadi centre for young children and pregnant or nursing women to consume at home.

**Particularly Vulnerable Tribal Group (PVTG)** – An official Government of India classification for tribal communities identified as facing the greatest disadvantage, on grounds including declining population, low literacy, subsistence economy and pre-agricultural technology. The Saharia are so classified.

## List of Tables

|                                                                                                       |    |
|-------------------------------------------------------------------------------------------------------|----|
| Executive Summary – Table 1. Baseline Values at a Glance .....                                        | 15 |
| Chapter 1 – Table 1. Project at a Glance .....                                                        | 18 |
| Chapter 1 – Table 2. Child Nutrition and Anaemia – National, State and District Picture (NFHS-5)..... | 19 |
| Chapter 2 – Table 1. The Four Measurement Populations .....                                           | 23 |
| Chapter 2 – Table 2. Components of Minimum Acceptable Diet (Children 6–23 Months) .....               | 25 |
| Chapter 2 – Table 3. Indicator Definitions, Standards and Cut-Offs .....                              | 26 |
| Chapter 3 – Table 1. Sample Size Calculation .....                                                    | 28 |
| Chapter 3 – Table 2. Baseline Comparability – Primary Nutrition Outcomes .....                        | 30 |
| Chapter 3 – Table 3. Baseline Comparability – Household and Respondent Characteristics .....          | 30 |
| Chapter 3 – Table 4. Achieved Sample .....                                                            | 32 |
| Chapter 4 – Table 1. Achieved Sample Against Plan .....                                               | 35 |
| Chapter 4 – Table 2. Respondent Sex .....                                                             | 35 |
| Chapter 4 – Table 3. Social Category of Surveyed Households.....                                      | 36 |
| Chapter 4 – Table 4. Respondent Education.....                                                        | 36 |
| Chapter 4 – Table 5. Household Size and Children Under Five.....                                      | 36 |
| Chapter 4 – Table 6. Age and Sex of Index Children .....                                              | 37 |
| Chapter 4 – Table 7. Selected Household Characteristics.....                                          | 37 |
| Chapter 4 – Table 8. Baseline Comparability of Intervention and Control Arms.....                     | 38 |
| Chapter 5 – Table 1. Household Dietary Diversity Score .....                                          | 39 |
| Chapter 5 – Table 2. What Households Actually Ate (Previous 24 Hours).....                            | 40 |
| Chapter 5 – Table 3. Women’s Dietary Diversity (Women 15–49) .....                                    | 41 |
| Chapter 5 – Table 4. Minimum Acceptable Diet and Its Components (Children 6–23 Months) .....          | 41 |
| Chapter 5 – Table 5. Household Food Insecurity Classification .....                                   | 42 |
| Chapter 5 – Table 6. What Households Experienced (Previous Four Weeks) .....                          | 43 |
| Chapter 5 – Table 7. Packaged and Fried Snack Consumption .....                                       | 44 |
| Chapter 6 – Table 1. Stunting Among Children Under Five .....                                         | 47 |
| Chapter 6 – Table 2. Stunting by Child Age .....                                                      | 47 |
| Chapter 6 – Table 3. Underweight Among Children Under Five.....                                       | 48 |
| Chapter 6 – Table 4. Wasting Among Children Under Five.....                                           | 49 |
| Chapter 6 – Table 5. Body Mass Index Among Women (15–49) .....                                        | 49 |
| Chapter 6 – Table 6. Feeding Practices, Children 6–23 Months .....                                    | 50 |
| Chapter 7 – Table 1. Main Source of Drinking Water .....                                              | 52 |
| Chapter 7 – Table 2. Water Availability and Distance.....                                             | 52 |
| Chapter 7 – Table 3. Adoption of Agricultural Practices .....                                         | 53 |
| Chapter 7 – Table 4. Kitchen Garden Ownership and Water Source.....                                   | 54 |
| Chapter 7 – Table 5. Primary Source of Household Income .....                                         | 54 |
| Chapter 7 – Table 6. Migration .....                                                                  | 55 |
| Chapter 7 – Table 7. Who Makes Household Decisions.....                                               | 56 |
| Chapter 7 – Table 8. Awareness of Gender-Based Violence Support Services.....                         | 56 |
| Chapter 7 – Table 9. Social Protection Scheme Coverage .....                                          | 57 |
| Chapter 8 – Table 1. Baseline Comparability – Intervention vs. Control, All Major Indicators .....    | 59 |
| Chapter 8 – Table 2. Structural Differences Between the Two Districts.....                            | 60 |

|                                                                             |    |
|-----------------------------------------------------------------------------|----|
| Chapter 8 – Table 3. Nutrition Outcomes by District.....                    | 60 |
| Chapter 8 – Table 4. Survey Findings and Qualitative Explanation.....       | 62 |
| Chapter 8 – Table 5. Baseline Findings Against NFHS-5 District Figures..... | 64 |
| Chapter 9 – Table 1. Severe Cases Identified Among Index Children .....     | 66 |
| Chapter 9 – Table 2. Severe Undernutrition Among Women.....                 | 66 |
| Chapter 9 – Table 3. Distribution of Severe Cases .....                     | 66 |
| Chapter 9 – Table 4. Referrals Formally Recorded in the Survey Data .....   | 67 |
| Chapter 9 – Table 5. Status at the Time of Reporting.....                   | 67 |
| Chapter 10 – Table 1. Baseline Values Against Project Targets .....         | 70 |
| Chapter 10 – Table 2. PZ1.3 Target Against Measured Baseline .....          | 71 |
| Chapter 11 – Table 1. Recommendations for Programme Design.....             | 74 |
| Chapter 11 – Table 2. Recommendations for Government Engagement.....        | 75 |
| Chapter 11 – Table 3. Recommendations for M&E .....                         | 76 |
| Chapter 11 – Table 4. Recommendations for Management.....                   | 77 |
| Chapter 11 – Table 5. Priority Actions in the First Three Months.....       | 77 |
| Annex I – Table 1. Discussion Inventory.....                                | 79 |
| Annex I – Table 2. District Contrasts Emerging from the Discussions.....    | 82 |
| Annex I – Table 3. Implications for Design and Implementation .....         | 83 |
| Annex I – Table 4. Points of Divergence.....                                | 84 |

# Executive Summary

## Why this survey was done

The Samposhan Project works with the Saharia community – a Particularly Vulnerable Tribal Group – across 50 villages in Bamori block of Guna district and Pohri block of Shivpuri district, Madhya Pradesh. It runs from December 2025 to June 2029 and commits to reducing child stunting and wasting by 40%, raising household dietary diversity, and improving the proportion of women and children eating an adequate diet.

A project promising a 40% reduction needs a credible starting point. This survey establishes it. It covered 612 households across 38 villages between 20 July and 14 August 2026, measuring one index child aged 0–59 months and that child’s mother in each household, alongside ten focus group discussions. A matched group of non-project villages was surveyed in parallel so that change can be measured as difference-in-differences at endline in 2029.

## What the survey found

**Table 1. Baseline Values at a Glance**

| Indicator                                              | Baseline value                                                                                            | Comparison                    |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------|
| Child stunting (height-for-age)                        | 51.2% (30.1% severe)                                                                                      | NFHS-5 district figure: 35%   |
| Child underweight (weight-for-age)                     | 49.1% (24.5% severe)                                                                                      | NFHS-5 district figure: 30.5% |
| Child wasting (weight-for-height)                      | 27.1% (10.3% severe)                                                                                      | NFHS-5 district figure: 14%   |
| Women with chronic energy deficiency                   | 41.3% (8.6% severe)                                                                                       | –                             |
| Household Dietary Diversity Score (mean of 12)         | 4.47 (48.0% reach the target of 5)                                                                        | Project target: at least 5    |
| HDDS – alternate scoring (composition-adjusted)        | 11-group NIN-aligned: 4.06 (30.7% reach target); 10-group, condiments excluded: 3.23 (10.9% reach target) | See §5.1 for full breakdown   |
| Women achieving minimum dietary diversity              | 3.7%                                                                                                      | –                             |
| Children 6–23 months achieving Minimum Acceptable Diet | 0.7%                                                                                                      | –                             |
| Households food insecure to any degree                 | 49.8%                                                                                                     | –                             |
| Households buying packaged snacks                      | 90.5% (two-thirds daily)                                                                                  | –                             |
| Households with a migrant member                       | 61.4% (77.5% in Shivpuri)                                                                                 | –                             |
| Anaemia in women and children                          | To follow as an addendum                                                                                  | NFHS-5: ~73% of children      |

*Note: All child figures use the index child – one child per household – and the corrected anthropometry dataset. Comparison figures are NFHS-5 (2019–21) for Guna and Shivpuri as cited in the project proposal.*

**A note on the HDDS row above.** The 48.0% of households "reaching target" mostly do so through cereals, spices/condiments/beverages (tea, salt), oils and pulses – not through eggs, meat, fish, dairy or fruit, which remain rare (see Table 2 and discussion, Chapter 5, §5.1). Re-scored on the 11-group NIN-aligned convention the mean falls to 4.06 (30.7% reaching target); excluding condiments as well, on a 10-group scale, it falls to 3.23 (10.9% reaching target). Reaching the household target on the 12-group scale is therefore a real but narrow – and largely condiment-driven – gain, and should not be read as evidence that diets are adequate: only 3.7% of women and 0.7% of children 6–23 months meet their own individual dietary-adequacy standards, as the rows below show.

Every anthropometric indicator sits between one and a half and two times the corresponding district average. These are not villages with a somewhat worse version of a district-wide problem; they are among the most nutritionally deprived communities in districts that themselves perform below the state average.

## Five things this baseline establishes

**1 Child undernutrition is severe, and worse than the project assumed.** Around half of children under five are stunted (51.2%) and underweight (49.1%), and more than a quarter are wasted (27.1%) – a level WHO classifies as very high and warranting urgent public health attention. The project design assumed a baseline stunting rate of about 35%. The measured figure is 51.2%.

**2 The constraint is dietary diversity, not how often children are fed.** Four in ten children aged 6–23 months (40.2%) are already fed often enough to meet the international standard, but only 1.3% eat a diet varied enough. Because an acceptable diet requires both, just 0.7% achieve one. Caregivers are feeding their children regularly; what is missing is something better to feed them.

**3 Households know what they lack. They cannot afford it.** Asked what they would eat with more money, focus group participants in most of group named the same foods on prompting – chicken, eggs, fruit, paneer, fish – and confirmed that diets visibly change when a migrant member returns with cash. Meat reaches 1.3% of households in a day, eggs 1.6%, fruit 11.3%. This is an access, affordability as well as awareness problem for households with less exposures and low education levels.

**4 Undernutrition is uniform across both study arms and both districts.** Stunting, wasting, underweight and women's BMI show no statistically significant difference between intervention and control villages, or between Guna and Shivpuri. This is favourable for the study design – the two arms start level on the measures that matter – but it means need is universal rather than concentrated somewhere that could be prioritised.

**5 Two structural barriers sit behind the nutrition findings.** Migration removes households from residence-linked services: 61.4% send a member away for work, rising to 77.5% in Shivpuri, and participants attributed failed kitchen gardens, missed growth monitoring and low Anganwadi attendance to absence rather than to poverty. Meanwhile the entitlement that works best delivers the wrong thing – the Public Distribution System reliably supplies grain, which is why food insecurity scores look benign while diets remain almost entirely cereal.

## The district picture

Guna and Shivpuri differ on almost every structural measure yet arrive at almost identical nutrition outcomes. Guna households mostly farm their own land (86.2%), have near-universal improved water (99.7%) and more kitchen gardens (60.0%), but a narrower diet and no millet cultivation (0.7%). Shivpuri households more often work as agricultural labourers (46.3%), migrate more (77.5%), and rely on unprotected wells (38.8%), but grow millets almost universally (87.3%) and record higher dietary diversity.

**This is the clearest programme signal in the baseline.** Undernutrition here is the common endpoint of two different sets of disadvantage. A single undifferentiated package will underperform in both districts. Guna needs dietary diversification using land and water it already has; Shivpuri needs water safety and service access before dietary advice can take hold.

## Matters requiring immediate attention

### A caseload of severely malnourished children and women

The survey identified 252 children severely affected on at least one anthropometric indicator, of whom 57 met the case definition for severe acute malnutrition, and 51 women with severe chronic energy deficiency. Details of such cases have been shared with the respective Anganwadi workers on the day of measurement, and a consolidated verified list is in place to check back on each child's current status. Chapter 9 sets this out in full.

### Anaemia has not been measured

Haemoglobin testing was suspended part-way through fieldwork after an accuracy problem with the measuring device. Partial data of uncertain accuracy would be worse than none, so it is not analysed here. Given that NFHS-5 found around 73% of young children in these districts anaemic, and given the dietary pattern documented in this report, completing this measurement should be treated as a priority rather than a formality.

### Two targets need to be revisited

The 40% reduction in stunting was set against an assumed baseline of about 35%. Measured against 51.2%, it requires moving roughly 20 percentage points rather than 14 – materially harder, and worth discussing with the donor against the measured figure. Separately, the dietary diversity target commits to an increase of ‘at least 40% over baseline’. On a baseline of 3.7%, a relative reading gives a target of 5.2%, which could be met while the underlying problem remained untouched; a percentage-point reading gives 43.7%. The wording admits both and should be settled explicitly now rather than disputed at endline.

### What should happen next

Chapter 11 sets out 27 recommendations. The following should be acted on first.

- Weight the programme towards access as well as awareness. Emphasis and budget on nutrition messaging towards making nutrient-dense food locally available and affordable – kitchen gardens, backyard poultry, local production, though to some extent households already know what they are missing.
- Prioritise dietary diversity over feeding frequency in all young child feeding work, and concentrate effort on the 6–23 month window, where stunting rises from 23.5% to 56.2%.
- Differentiate the package by district – millet reintroduction and diversification in Guna; water access and service linkage in Shivpuri.
- Run an enrolment drive for PMMVY and CM Prasuti Sahayata Yojana. These are the two schemes designed for maternal nutrition and they reach only 13.2% and 8.5% of households, against 50.3% for a general cash transfer. This is the highest nutritional return available for the least programme cost.
- Verify the current status of the identified severe cases through a health worker, and use the biannual growth monitoring round to record what follows.
- Complete the anaemia addendum, and settle the two target questions with the donor.
- Refer the Shivpuri water finding – 38.8% of households drinking from unprotected wells – to the relevant department. It lies outside the project’s scope but directly affects the outcomes the project exists to change.

### Is this baseline fit for purpose?

Yes, with one gap and four caveats. The sample was achieved as designed and is evenly balanced between arms and districts. Measurement follows WHO, FAO and UNICEF standards throughout, so the figures are comparable both with national survey data and with an identically conducted endline. Data quality was independently validated, and the qualitative work corroborates rather than contradicts the survey.

The gap is anaemia. The caveats are that control villages were selected purposively rather than by formal matching – though the data shows the arms to be comparable on every primary outcome – that four documented baseline differences must be controlled for at endline, that kitchen garden indicators are affected by preparatory activity carried out in 2024–25, and that a small number of biologically implausible measurements were excluded, with counts stated wherever they affect a figure.

These limitations are known, bounded and recorded. None of them alters the central finding of this report: that undernutrition in these villages is severe, that its causes are legible, and that the constraint the project must address is what is available to put in the bowl.

# Chapter 1 – Introduction and Context

## 1.1 About the Project

The Samposhan Project – formally titled Transregional and Gender-Specific Strengthening of Food Security and Resilient Livelihoods – works with some of the most nutritionally vulnerable communities in Madhya Pradesh. It runs from December 2025 to June 2029 and is being implemented in India by Vikas Samvad Samiti (VSS) in partnership with terre des hommes Germany e.V. and Intuba, Zimbabwe.

The project is trans-regional in design. India is one of two country programmes under Project 8505; the other is implemented by Intuba in Nkayi district, Zimbabwe. The two countries share a common results framework and exchange approaches, but each is designed as a standalone, fully powered study and reports against its own baseline. This report covers the India programme only.

In India, the project covers 50 villages – 25 each in Bamori block of Guna district and Pohri block of Shivpuri district. Around 5,000 households live in these villages. The project works directly with 4,875 families on organic farming, kitchen gardening, poultry, integrated farming systems and water structures, and monitors the health of roughly 5,000 children under five and 1,000 women. Counting community groups, village-level committees and frontline workers, the direct reach is approximately 16,800 people, with a further 7,500 households (about 36,000 people) expected to benefit indirectly from stronger community structures and better-functioning government nutrition programmes.

**Table 1. Project at a Glance**

| Item                              | Detail                                                                                                       |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------|
| Project number                    | 8505                                                                                                         |
| Project title                     | Transregional and Gender-Specific Strengthening of Food Security and Resilient Livelihoods                   |
| Country programme                 | India (partner programme: Zimbabwe)                                                                          |
| Duration                          | 1 December 2025 – 30 June 2029                                                                               |
| Implementing organisation (India) | Vikas Samvad Samiti (VSS)                                                                                    |
| Supporting organization           | terre des hommes Deutschland e.V.                                                                            |
| Geographic coverage               | 50 villages – Bamori block (Guna) and Pohri block (Shivpuri), Madhya Pradesh                                 |
| Households in project villages    | Approximately 5,000                                                                                          |
| Direct target group               | 4,875 farming families; 5,000 children aged 0–5; 1,000 women; 1,800 community group members (≈16,818 people) |
| Indirect target group             | 7,500 households (≈36,000 people)                                                                            |
| Primary community                 | Saharia – a Particularly Vulnerable Tribal Group (PVTG)                                                      |

*Note: Table 1 note: Figures are drawn from the approved project proposal. The baseline survey covered a sample of 612 households; sampling is described in Chapter 3.*

## 1.2 Who the Project Works With

The project works primarily with the Saharia community, one of India's Particularly Vulnerable Tribal Groups (PVTG). The Saharia live across Guna, Shivpuri, Sheopur, Morena, Bhind, Gwalior, Datia and Vidisha districts of Madhya Pradesh, and in Baran district of neighbouring Rajasthan.

Historically, the Saharia were forest dwellers. They made their living from the forest – collecting tendu leaves, mahua, honey, gum and medicinal herbs, producing catechu from khair trees, cutting wood, weaving baskets and quarrying stone. Farming was a supplement, not the mainstay.

That way of life has largely gone. Over the past three to four decades, forest degradation has stripped away the non-timber forest produce the community depended on. Farming has stayed traditional and largely subsistence-level, producing little beyond what a family eats. With the forest no longer providing and the land not producing enough, most families now depend on daily wage labour.

The consequence is migration. Around 60% of Saharia families migrate seasonally, often for six to seven months of the year. Migration is not simply an economic fact – it breaks the household’s connection to the systems meant to support it. A family away from the village for half the year loses reliable access to the Public Distribution System, to the Anganwadi centre, to school meals and to health services, all of which are anchored to the place of residence. Migration also makes it difficult to grow a diverse range of foods locally, since nobody is present through the growing season.

Women and children carry the heaviest cost. Women are far more likely than men to be anaemic. Girls face early marriage and higher school dropout. Decision-making in the household and the village tends to sit with men, and questions of health, nutrition and gender rarely reach the agenda of village institutions. Where community-based support systems are weak, dominant village groups have tended to capture government services, leaving the Saharia at the margins.

The result, in nutritional terms, is a diet that has narrowed to very little. National survey data indicates that the everyday Saharia diet centres on roughly two food groups, mostly starchy staples, with heavy reliance on government food programmes and minimal local production. NFHS-5 found that only 8.5% of Saharia children under two receive an adequate diet.

### 1.3 The Nutrition Situation in Guna and Shivpuri

Madhya Pradesh performs poorly on child nutrition relative to the rest of India, and the two project districts perform poorly relative to the state. The table below sets out the picture from NFHS-5 (2019–21), the most recent national data available when the project was designed.

**Table 2. Child Nutrition and Anaemia – National, State and District Picture (NFHS-5, 2019–21)**

| Indicator                      | India | Madhya Pradesh | Guna & Shivpuri |
|--------------------------------|-------|----------------|-----------------|
| Children under 5 – stunted     | –     | –              | 35%             |
| Children under 5 – wasted      | –     | –              | 14%             |
| Children under 5 – underweight | –     | –              | 30.5%           |
| Children under 5 – anaemic     | –     | –              | 73%             |
| Women 15–49 – anaemic          | 57.0% | 54.7%          | Over 50%        |
| Men 15–49 – anaemic            | 25.0% | 22.7%          | –               |

*Note: Table 2 note: District figures are as cited in the approved project proposal. Dashes indicate figures not separately reported at that level in the source. Anaemia among women in Madhya Pradesh rose from 52.5% in NFHS-4 to 54.7% in NFHS-5.*

Two features stand out. First, anaemia is extraordinarily widespread – affecting roughly three in four young children in these districts, and more than half of women. Second, the gender gap is stark: women are more than twice as likely to be anaemic as men.

Block-level data does not exist for Bamori and Pohri. However, VSS's own earlier surveys in the 50 project villages found malnutrition rates substantially higher than the national, state and district averages – which is what prompted the project's focus on these specific villages. One purpose of this baseline is to replace that indicative picture with measured, representative data. As Chapters 5 and 6 show, the baseline findings confirm that the situation in these villages is considerably worse than the district averages above.

## 1.4 What the Project Aims to Achieve

The project contributes to Sustainable Development Goal 2 (Zero Hunger). Nationally, it works within the framework of the National Food Security Act 2013, and in Madhya Pradesh it supports the state's aim of eliminating malnutrition by 2030. In practice this means working alongside – not parallel to – the Integrated Child Development Services (ICDS), the National Rural Health Mission, the Targeted Public Distribution System, the Mid-Day Meal Scheme, Pradhan Mantri Matru Vandana Yojana (PMMVY) and Pradhan Mantri Jan Man Yojana.

### Project objective

*By the end of the project, households and communities in the project regions will have reduced their food insecurity and malnutrition, and will be generating their livelihoods from diversified, resilient sources of income.*

### Objective-level indicators and targets

| Ref   | Indicator                                                    | Target by end of project                                                                            |
|-------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| PZ1.1 | Household Dietary Diversity Score (HDDS), 12 food groups     | Average HDDS rises to at least 5                                                                    |
| PZ1.2 | Minimum Dietary Diversity – women (MDD-W) and children (MAD) | Proportion achieving a minimum dietary diversity score of 5 increases by at least 40% over baseline |
| PZ1.3 | Child stunting and wasting                                   | Cases of stunting and wasting in the target group fall by 40% against the baseline year             |

### The four sub-objectives

Beneath the main objective sit four sub-objectives, each addressing a different part of the problem described in Section 1.2.

| Ref | Sub-objective                                                                                                                    | What this looks like in practice                                                                                                                                         |
|-----|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UZ1 | Communities improve their access to food through community-based monitoring structures and resilient agricultural infrastructure | 150 community groups (children, youth, women) and 100 statutory committees organised and trained; regular community monitoring of the PDS, schools and Anganwadi centres |
| UZ2 | Households are empowered to independently implement diversified food and income measures                                         | 2,000 families growing at least 3–4 vegetables and 1–2 fruits, and/or keeping livestock, for their own consumption                                                       |
| UZ3 | Households can assess and prevent rights violations arising from cultural barriers or gender inequality                          | 2,500 people reached through education and awareness on nutrition, health and gender-based violence; 2,000 women and girls monitoring their own health indicators        |
| UZ4 | Community structures, local leaders and project implementers are strengthened                                                    | 50 local structures actively promoting GPDP, social audits and convergence of government programmes; ~900 village committee members and officials trained                |

Read together, these four sub-objectives describe a single approach: grow more and more varied food at household level (UZ2), make sure government nutrition programmes actually work for these villages (UZ1 and UZ4), and address the gender norms that determine who eats what and who decides (UZ3).

## 1.5 Why This Baseline, and What It Covers

A project that promises a 40% reduction in stunting and wasting needs a credible starting point. Without one, there is no honest way to say at the end whether anything changed. That is the primary purpose of this baseline: to establish, by measurement rather than estimate, where these communities stood before the project's main activities began.

The baseline serves four specific purposes:

- Establishing baseline values for every objective-level and sub-objective indicator in the project's results framework, so that endline change can be measured against a defensible reference point.
- Enabling a like-for-like endline. The survey is designed to be repeated identically at the end of the project, using the same tools, the same indicator definitions and the same sampling approach, in both an intervention and a control arm.
- Informing programme design. The findings show clearly which problems are most pressing and where the project's effort will yield most – several of these are set out in Chapter 11.
- Meeting accountability obligations to the donor, to government counterparts and to the communities themselves.

### Timing: what "baseline" means here

Project activities on the ground began in March 2026. Data collection for this baseline ran from 20 July to 14 August 2026. The survey therefore captures the situation a few months into implementation rather than on day one.

One point should be stated plainly. During a preparatory phase in 2024–25, before the project formally began, some activities were introduced in a number of villages – notably kitchen gardens and poultry, with seed kits and chicks distributed. This preparatory work was concentrated in villages that later became intervention villages. It is the most likely explanation for the difference the baseline records in kitchen garden ownership between the two arms (50.2% in intervention villages against 25.2% in control villages, reported in Chapter 7). This is not a flaw in the survey; it is a real feature of the project's history, and it is recorded here so that any change measured at endline on garden-related indicators is interpreted with it in mind.

Encouragingly, the same pattern does not appear in the outcome indicators that matter most. As Chapter 6 shows, stunting, wasting, underweight and women's nutritional status are statistically indistinguishable between the two arms at baseline. Whatever the preparatory activities achieved, they had not yet shifted child nutritional status by the time of measurement – which is exactly what one would expect, since nutritional change of that kind takes years, not months.

### What the baseline measures

The survey is built around a single household visit centred on one index child – the youngest child aged 0–59 months in the household – and that child's mother. This design allows four different indicator populations to be measured from one visit.

| Level            | Indicators                                                                                                                                                                                                            |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primary (impact) | Child stunting, wasting and underweight (WHO Child Growth Standards); Household Dietary Diversity Score; Minimum Dietary Diversity for Women; Minimum Acceptable Diet for children 6–23 months                        |
| Secondary        | Household food insecurity (HFIAS); women's nutritional status (BMI) and anaemia*                                                                                                                                      |
| Contextual       | Household demographics; drinking water and sanitation; agriculture and nutrition gardens; gender and household decision-making; child rights awareness; income, livelihoods and migration; social protection coverage |

*Note: \*Anaemia: haemoglobin testing was suspended mid-survey following an accuracy problem with the haemoglobin measuring device. Haemoglobin data will be collected once the equipment issue is resolved and added to this report as an addendum. Anaemia is therefore not analysed in this edition. See Chapter 3 for details.*

## 1.6 How to Read This Report

The report is written for several audiences at once – the donor and international partners, government officers and project staff who will act on the findings, and VSS management. Not every reader needs every chapter.

| If you want...                                     | Read                                                  |
|----------------------------------------------------|-------------------------------------------------------|
| The findings in brief                              | Executive Summary (4–6 pages, written to stand alone) |
| Background and what the project is trying to do    | Chapter 1 (this chapter) and Chapter 2                |
| How the survey was designed and carried out        | Chapter 3                                             |
| Who was surveyed                                   | Chapter 4                                             |
| Food security and diet findings                    | Chapter 5                                             |
| Child and women's nutritional status               | Chapter 6                                             |
| The wider picture – water, farming, income, gender | Chapter 7                                             |
| What it all adds up to                             | Chapter 8                                             |
| Cases needing follow-up now                        | Chapter 9                                             |
| Conclusions and what to do about them              | Chapters 10 and 11                                    |
| The instrument and findings details                | Annexes I & II                                        |

Two conventions are worth noting before reading the findings chapters. First, all child anthropometry results are based on the index child – one child per household – in line with the sampling design. Second, records with measurements outside the biologically plausible range set by WHO have been excluded from the relevant calculations; where this affects a figure, the number of excluded records is stated alongside it. Both decisions are explained in Chapter 3.

---

*Sources for this chapter: Project proposal P8505 (Antrag Teil II) and the India country proposal; NFHS-5 (2019–21); baseline sampling and measurement protocol; baseline survey findings as reported in Chapters 5–7.*

## Chapter 2 – Indicator Framework

This chapter defines every indicator used in this report before any results are presented. It is placed here deliberately: the figures in Chapters 5 to 7 only mean something if the reader knows exactly what was counted, over what recall period, and against which standard. Readers who want the findings first can move to Chapter 5 and return here when a definition needs checking.

All indicator definitions follow international standards – WHO, UNICEF, FAO and FANTA – rather than locally invented measures. This matters for two reasons. It allows these villages to be compared fairly against NFHS district and state figures, and it means the endline survey in 2029 can repeat exactly the same measurement without ambiguity.

### 2.1 How the Indicators Fit Together

The project's results framework works at three levels, and the indicators follow the same logic.

Primary (impact) indicators measure whether the project achieved what it set out to achieve. These are the four indicators written into the project's objective statement – child anthropometry and the three diet-diversity measures – and they carry the project's formal targets.

Secondary indicators describe the nutrition situation more fully and help explain movement in the primary indicators. They are reported descriptively and do not carry targets of their own.

Contextual indicators describe the conditions in which households live – water, farming, income, migration, gender relations, access to government schemes. They do not measure project success directly, but they explain why the primary indicators sit where they do, and they tell the project where to concentrate effort.

One design decision underpins all of this. Each indicator belongs to a different population – a household, a woman, a child under five, or a child aged 6–23 months. Rather than run separate surveys, the questionnaire was built around a single household visit centred on the index child (the youngest child aged 0–59 months) and that child's mother. One visit therefore produces measurements for all four populations at once.

**Table 1. The Four Measurement Populations**

| Population        | Who is measured                                                                   | Indicators drawn from this population                                        |
|-------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Household         | The person who prepares or knows the household's food                             | Household Dietary Diversity Score (HDDS); household food insecurity (HFIAS)  |
| Woman 15–49       | The index child's mother, or the primary female caregiver if the mother is absent | Minimum Dietary Diversity for Women (MDD-W); Body Mass Index (BMI); anaemia* |
| Child 0–59 months | The index child                                                                   | Stunting (HAZ); wasting (WHZ); underweight (WAZ)                             |
| Child 6–23 months | The index child, where they fall in this age band                                 | Minimum Acceptable Diet (MAD) and its components                             |

*Note: \*Anaemia was not measured for the full sample. Haemoglobin testing was suspended part-way through fieldwork after an accuracy problem with the measuring device, and is not analysed in this edition of the report.*

## 2.2 Primary Indicators

### Child anthropometry – stunting, wasting and underweight

A child's height and weight, compared against the WHO Child Growth Standards for a healthy child of the same age and sex, produce three separate measures. Each says something different, and they are not interchangeable.

- Stunting (height-for-age, HAZ) reflects chronic undernutrition – a child who has been short of adequate food and care over a long period, and has not grown to their expected height. Stunting develops slowly and is largely irreversible after about two years of age.
- Wasting (weight-for-height, WHZ) reflects acute undernutrition – a child who is too thin for their height, usually because of recent illness or a sharp drop in food intake. Wasting can appear and resolve within weeks.
- Underweight (weight-for-age, WAZ) is a composite of both. It is useful for tracking overall nutritional status but does not distinguish chronic from acute causes.

For each measure, a child is classified as affected if their z-score falls below –2, and severely affected below –3. A z-score of –2 means the child sits two standard deviations below the median of the healthy reference population – a threshold set internationally, not by this project.

Stunting is the project's anchor indicator. It is the most reliably measurable of the three, changes least in response to short-term fluctuation, and was used to determine the survey's sample size (explained in Chapter 3).

### Household Dietary Diversity Score (HDDS)

HDDS counts how many of twelve food groups anyone in the household ate in the previous 24 hours. The twelve groups are: cereals; white roots and tubers; vegetables; fruits; meat; eggs; fish and seafood; legumes, nuts and seeds; milk and milk products; oils and fats; sweets; and spices, condiments and beverages.

The score runs from 0 to 12 and is reported as an average across households. It is a measure of the variety of the household food supply, and by extension of the household's economic access to food. The project target is an average of at least 5.

This report scores HDDS on three group compositions, presented side by side in Chapter 5, §5.1. The 12-group FAO standard is the project protocol measure and the one against which the project target is tracked. An 11-group NIN-aligned scale, matching the food-group convention used by India's National Institute of Nutrition, merges pulses/legumes/nuts/seeds with oils/fats into a single group. A 10-group scale additionally excludes spices, condiments and beverages, which are near-universally consumed but supply negligible micronutrient diversity and can otherwise mask a narrow diet. The 12-group figure remains the indicator of record against PZ1.1; the 11- and 10-group figures are presented as a sensitivity check on what that figure means in practice.

### Minimum Dietary Diversity for Women (MDD-W)

MDD-W asks whether a woman aged 15–49 ate from at least 5 of 10 defined food groups in the previous 24 hours. The ten groups are: grains, white roots, tubers and plantains; pulses; nuts and seeds; dairy; meat, poultry and fish; eggs; dark green leafy vegetables; other vitamin-A-rich fruits and vegetables; other vegetables; and other fruits.

Unlike HDDS, MDD-W is reported as a proportion – the percentage of women who met the threshold – not as an average score. It is a validated proxy for whether a woman's diet is likely to supply adequate micronutrients.

### Minimum Acceptable Diet (MAD) – children 6–23 months

MAD is the strictest of the diet indicators, and the most informative for young child feeding. It follows the WHO/UNICEF 2021 IYCF framework and combines two or three conditions, all of which must be met.

**Table 2. Components of Minimum Acceptable Diet (Children 6–23 Months)**

| Component                             | What it requires                                                                                                                                                                                                                          |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MDD – Minimum Dietary Diversity       | At least 5 of 8 food groups eaten yesterday. The eight groups are: breast milk; grains, roots, tubers and plantains; pulses, nuts and seeds; dairy; flesh foods; eggs; vitamin-A-rich fruits and vegetables; other fruits and vegetables. |
| MMF – Minimum Meal Frequency          | Breastfed children: at least 2 feeds at 6–8 months, at least 3 at 9–23 months.<br>Non-breastfed children: at least 4 feeds counting foods and milk feeds, with at least one food feed.                                                    |
| MMFF – Minimum Milk Feeding Frequency | Applies to non-breastfed children only: at least 2 milk feeds.                                                                                                                                                                            |
| MAD – the combined indicator          | Breastfed children must meet MDD and MMF. Non-breastfed children must meet MDD, MMF and MMFF.                                                                                                                                             |

Because MAD is a combination, reporting its components separately is more useful than reporting MAD alone – it shows which condition is failing. As Chapter 5 sets out, that distinction turns out to matter a great deal in this population.

**Three different food group lists.** HDDS uses 12 groups, MDD-W uses 10, and child MDD uses 8 (with breast milk as the first group). These lists are not interchangeable and were kept separate throughout analysis. Confusing them is the most common error in diet-diversity reporting, and it is the reason the three diet indicators in this report are never combined or averaged together.

## 2.3 Secondary Indicators

### Household Food Insecurity Access Scale (HFIAS)

HFIAS asks nine questions about the household’s experience of food shortage over the previous four weeks. The questions move through three stages of severity: first anxiety about whether food will run out; then compromises on quality and variety; and finally reductions in the actual quantity of food eaten, including going without.

Each ‘yes’ is followed by a question about how often it happened – rarely, sometimes, or often. This produces a score from 0 to 27 and a four-way classification: food secure, mildly food insecure, moderately food insecure, or severely food insecure.

HFIAS complements HDDS. HDDS measures what a household actually ate; HFIAS measures whether the household worried, compromised or went without. A household can score reasonably on one and poorly on the other.

### Women’s nutritional status (BMI)

Body Mass Index is weight in kilograms divided by height in metres squared. A BMI below 18.5 indicates chronic energy deficiency – a woman who is persistently underweight for her height. Pregnant women are excluded from BMI classification, since pregnancy weight gain makes the measure meaningless for this purpose.

### Anaemia

Anaemia is measured by capillary haemoglobin, using WHO cut-offs of below 12.0 g/dL for non-pregnant women, below 11.0 g/dL for pregnant women, and below 11.0 g/dL for children aged 6–59 months, with severity bands beneath each.

As set out in Chapter 1, haemoglobin testing was suspended part-way through fieldwork following an accuracy problem with the measuring device. Readings taken before the suspension are held but are not analysed in this edition, because a partial and possibly unreliable dataset would be worse than none. Haemoglobin will be re-

collected once the equipment issue is resolved, and the results issued as an addendum to this report. Chapter 3 explains the decision in full.

## 2.4 Contextual Modules

The contextual modules do not carry targets, but they are what make the primary findings interpretable. If a household has no reliable water, farms someone else's land, and sends a member away for seven months of the year, that explains a great deal about why its diet looks the way it does.

| Module                               | What it covers                                                                                      | Why it matters here                                                                 |
|--------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Household demographics               | Composition by age and sex, social category, education, chronic illness, addiction                  | Establishes who the sample represents and whether the two study arms are comparable |
| Drinking water and sanitation        | Main source, availability, distance, alternative sources                                            | Water quality is directly linked to diarrhoeal illness and therefore to wasting     |
| Agriculture and nutrition gardens    | Farming status, sustainable practices, organic inputs, kitchen gardens                              | The main route by which the project expects diets to diversify (UZ2)                |
| Gender and household decision-making | Who decides on income, purchases and children's welfare; awareness of gender-based violence support | Determines who controls food and health spending (UZ3)                              |
| Child rights awareness               | Whether adolescents can name their basic rights                                                     | Tracks the awareness-building component of UZ3                                      |
| Income, livelihoods and migration    | Primary and secondary income sources, migration pattern, remittances                                | Migration is central to the Saharia situation described in Chapter 1                |
| Social protection coverage           | Which government schemes the household actually receives                                            | Tests whether entitlements are reaching these households (UZ1 and UZ4)              |

## 2.5 Indicator Reference Table

The table below is the single reference point for every indicator in this report – its definition, the standard it follows, the cut-off applied, and where its baseline value is reported. Endline targets are shown where the project has set one.

**Table 3. Indicator Definitions, Standards and Cut-Offs**

| Ref   | Indicator                         | Population      | Standard                        | Cut-off applied              | Reported in |
|-------|-----------------------------------|-----------------|---------------------------------|------------------------------|-------------|
| PZ1.3 | Stunting (HAZ)                    | Children 0–59 m | WHO Child Growth Standards 2006 | HAZ < –2 (severe < –3)       | Ch. 6       |
| PZ1.3 | Wasting (WHZ)                     | Children 0–59 m | WHO Child Growth Standards 2006 | WHZ < –2 (severe < –3)       | Ch. 6       |
| –     | Underweight (WAZ)                 | Children 0–59 m | WHO Child Growth Standards 2006 | WAZ < –2 (severe < –3)       | Ch. 6       |
| PZ1.1 | Household Dietary Diversity Score | Household       | FAO / FANTA, 12 groups          | Score 0–12, reported as mean | Ch. 5       |
| PZ1.2 | Minimum Dietary Diversity – Women | Women 15–49     | WHO / FAO MDD-W, 10 groups      | ≥5 of 10 groups              | Ch. 5       |

| Ref   | Indicator                    | Population                   | Standard                       | Cut-off applied                                            | Reported in |
|-------|------------------------------|------------------------------|--------------------------------|------------------------------------------------------------|-------------|
| PZ1.2 | Minimum Acceptable Diet      | Children 6–23 m              | WHO/UNICEF IYCF 2021, 8 groups | MDD $\geq 5$ of 8, plus MMF (and MMFF if not breastfed)    | Ch. 5       |
| –     | Household food insecurity    | Household                    | FANTA HFIAS, 9 items           | Score 0–27; 4 categories                                   | Ch. 5       |
| –     | Women’s undernutrition (BMI) | Women 15–49, non-pregnant    | WHO BMI classification         | BMI < 18.5                                                 | Ch. 6       |
| –     | Anaemia                      | Women 15–49; children 6–59 m | WHO haemoglobin cut-offs       | Women < 12.0 g/dL; pregnant women and children < 11.0 g/dL | Addendum    |

*Note: Recall period: all diet-diversity indicators (HDDS, MDD-W, child MDD) use a 24-hour recall – ‘yesterday, day and night’, from sunrise to sunrise. HFIAS uses a four-week recall. Anthropometric measurements were taken at the time of the visit.*

## 2.6 Two Points on Interpretation

### A 24-hour recall describes a population, not a household

Diet-diversity indicators ask what was eaten yesterday. For any single household, yesterday may have been unusual – a festival, an illness, a market day. Across several hundred households, however, those individual variations average out, and the result is a reliable picture of what people in these villages typically eat.

This means the figures in Chapter 5 should be read as statements about the population, not about any particular family. It also means the indicator is well suited to comparison over time: repeated at endline across a similar number of households, it will detect real change in the population’s diet.

### What the baseline can and cannot settle

The survey was sized to detect change in stunting, which is the project’s anchor indicator. It is well powered for that purpose. The diet-diversity indicators are carried as descriptive and monitoring measures – they establish a credible starting value and will show direction of travel at endline, but the survey was not designed to detect small changes in them with the same precision.

This is a deliberate design choice, explained in Chapter 3, and it is stated here so that readers do not over-read small differences in the diet indicators between subgroups. Where a difference in this report is statistically significant, it is identified as such; where it is not, the report says so plainly.

---

*Sources for this chapter: WHO Child Growth Standards (2006); WHO/UNICEF Indicators for Assessing Infant and Young Child Feeding Practices (2021); FAO/FHI 360 Minimum Dietary Diversity for Women (MDD-W); FANTA Household Dietary Diversity Score and Household Food Insecurity Access Scale guidance; project proposal P8505.*

## Chapter 3 – Methodology

This chapter explains how the survey was designed and carried out, and – just as importantly – where it fell short of the original design and what that means for the findings. A baseline is only useful if the reader can judge how much weight to put on it. Everything needed to make that judgement is set out here.

### 3.1 Study Design

The baseline uses a two-arm design. One group of villages is drawn from the 50 project villages (the intervention arm); a second, comparable group of non-project villages in the same blocks forms the control arm. The same survey will be repeated in both arms at the end of the project in 2029.

This design allows impact to be measured as a difference-in-differences: the change in the intervention villages minus the change in the control villages. The logic is simple. If child nutrition improves in project villages but improves equally in non-project villages, the improvement was probably caused by something else – a good harvest, a new government scheme, general economic change. Only the difference between the two changes can reasonably be attributed to the project.

District is treated as a stratum. Villages were selected separately within Guna and Shivpuri so that both districts are properly represented and can be described separately – which matters, because as Chapter 7 shows, the two districts differ substantially in their structural conditions.

### 3.2 Sample Size

The sample was sized on child stunting. Of the project's indicators, stunting is the most reliably measurable, the least affected by short-term fluctuation, and the one carrying the project's headline target – so it is the appropriate anchor.

The calculation asks: how many children are needed to be confident of detecting the change the project aims for? Detecting a reduction in stunting from around 35% to 21% – the project's 40% reduction target – with 80% statistical power and 95% confidence requires approximately 160 children per arm.

That figure then needs two adjustments. Because children are sampled in clusters (villages) rather than individually across the whole population, and children in the same village resemble one another more than children chosen at random, a design effect of 1.5 is applied. A further 10% is added for non-response. This gives a working target of approximately 270 children per arm.

The project subsequently increased this to 306 children per arm – 18 villages per arm at 17 households per village. This raises statistical power from 80% to approximately 84%, meaning the survey is somewhat more likely to detect a real change if one occurs. The larger sample also gives more reliable district-level estimates, since each district carries roughly 150 households per arm rather than 135.

**Table 1. Sample Size Calculation**

| Step                                         | Value     | Basis                                           |
|----------------------------------------------|-----------|-------------------------------------------------|
| Detectable change in stunting                | 35% → 21% | Project target: 40% reduction                   |
| Statistical power / confidence               | 80% / 95% | Standard convention                             |
| Children required per arm, before clustering | ≈160      | Standard two-proportion sample size calculation |
| Design effect for cluster sampling           | × 1.5     | Standard allowance for village clustering       |

| Step                   | Value | Basis                                             |
|------------------------|-------|---------------------------------------------------|
| Non-response allowance | + 10% | Standard allowance                                |
| Working target per arm | ≈270  | Protocol figure                                   |
| Revised target per arm | 306   | 18 villages × 17 households; raises power to ≈84% |

### 3.3 Sampling Units

| Level                           | Definition                                                                                        |
|---------------------------------|---------------------------------------------------------------------------------------------------|
| Primary sampling unit (cluster) | Village                                                                                           |
| Ultimate sampling unit          | Household containing at least one child aged 0–59 months                                          |
| Unit of analysis (child)        | The index child – the youngest child aged 0–59 months in the household                            |
| Linked woman                    | The index child’s mother, or the primary female caregiver aged 15–49 if the mother is absent      |
| Household-level measures        | HDDS and HFIAS, taken once per household from the person who prepares or knows the household food |

Selecting one index child per household – rather than measuring every child under five – is a deliberate choice. Children in the same household share the same food, the same water, the same caregiving and the same income. Their nutritional outcomes are therefore not independent of one another, and treating them as if they were would overstate the precision of the results. One child per household avoids this. Section 3.9 explains how this rule was applied in analysis.

### 3.4 Village Selection

#### Intervention villages

Intervention villages were selected from the 50 project villages using probability-proportional-to-size (PPS) sampling, with the number of households as the measure of size. Under PPS, larger villages have a proportionally greater chance of selection, which means every child in the project area has an approximately equal chance of being sampled – producing a near self-weighting sample that does not need adjustment during analysis.

#### Control villages

The original protocol called for control villages to be matched to intervention villages on district, block, population size, social composition, remoteness, service access and migration pattern, with a buffer against villages adjacent to project villages to avoid spillover effects.

In practice, control villages were selected purposively, using local knowledge of comparable non-project villages in the same blocks, rather than through a formal matching procedure. This was a field-level decision driven by practical constraints: no ready listing of comparable non-project villages with the required characteristics was available within the survey timeframe, and formal matching would have required a preliminary village-listing exercise that the schedule did not permit.

This is a departure from the protocol and is stated as such. The question that matters, however, is not whether the selection procedure was ideal, but whether it produced a control group that is genuinely comparable to the intervention group. The survey data allows that question to be answered directly, and Section 3.5 does so.

### 3.5 Is the Control Group Comparable? Evidence from the Survey

A control group selected by judgement rather than by formal matching carries an obvious risk: the two arms might differ systematically at the outset, in which case any difference measured at endline could reflect that starting gap rather than the project. The baseline data lets us test this directly, by comparing the two arms across every indicator measured.

The test that matters most is whether the arms differ on the outcomes the project is trying to change. On this, the evidence is clear and reassuring.

**Table 2. Baseline Comparability – Primary Nutrition Outcomes (Index Child)**

| Indicator                   | Intervention | Control | Statistical test          | Significant difference? |
|-----------------------------|--------------|---------|---------------------------|-------------------------|
| Stunting (HAZ < -2)         | 52.0%        | 50.5%   | $\chi^2=0.07$ , $p=0.794$ | No                      |
| Underweight (WAZ < -2)      | 48.3%        | 49.8%   | $\chi^2=0.09$ , $p=0.770$ | No                      |
| Wasting (WHZ < -2)          | 27.6%        | 26.7%   | $\chi^2=0.02$ , $p=0.890$ | No                      |
| Mean height-for-age z-score | -2.00        | -1.83   | $t=-0.98$ , $p=0.326$     | No                      |
| Mean weight-for-age z-score | -1.95        | -2.01   | $t=0.67$ , $p=0.502$      | No                      |

On all three primary child nutrition indicators – the measures against which the project’s headline target is set – the two arms are statistically indistinguishable at baseline. This is the single strongest piece of evidence that the control group is fit for purpose.

The same holds for the core household characteristics that would normally be used for matching.

**Table 3. Baseline Comparability – Household and Respondent Characteristics**

| Characteristic                            | Statistical test          | Significant difference? |
|-------------------------------------------|---------------------------|-------------------------|
| Social category (ST / SC / OBC / General) | $\chi^2=4.21$ , $p=0.240$ | No                      |
| Respondent education (grouped)            | $\chi^2=6.59$ , $p=0.253$ | No                      |
| Respondent illiteracy                     | $\chi^2=0.00$ , $p=0.947$ | No                      |
| Household size                            | $t=-1.47$ , $p=0.141$     | No                      |
| Women’s nutritional status (BMI)          | Not significant           | No                      |

Taken together, the two arms match on social composition, education, household size, women’s nutritional status and – most importantly – on all three child anthropometric outcomes. For a control group assembled without formal matching, this is a strong result. It suggests the field team’s local knowledge of which villages were genuinely comparable was sound.

#### Three differences that do exist

Honesty requires stating where the arms do differ. Three indicators show a statistically significant gap at baseline.

| Indicator                                    | Intervention | Control | Assessment                                                                             |
|----------------------------------------------|--------------|---------|----------------------------------------------------------------------------------------|
| Household food insecurity (HFIAS mean score) | 1.41         | 2.41    | Control households more food insecure ( $p<0.001$ ). Must be accounted for at endline. |
| Chronic illness in household                 | 2.6%         | 7.5%    | Higher in control ( $p=0.004$ ). Small absolute numbers; monitor.                      |

| Indicator                | Intervention | Control | Assessment                                                                                                                                     |
|--------------------------|--------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Kitchen garden ownership | 50.2%        | 25.2%   | Explained by 2024–25 preparatory activity in villages that later became intervention villages (see Chapter 1, §1.5). Not a selection artefact. |

The kitchen-garden difference has a documented cause and is disclosed in Chapter 1. The other two are genuine baseline imbalances of the kind that arise in any non-randomised comparison. Neither concerns a primary outcome indicator, but both should be included as covariates in the endline impact analysis so that the estimate of project effect is adjusted for the starting difference.

**Conclusion on the control arm.** The control villages were not selected by the formal matching procedure the protocol specified, and this is a real limitation. However, the baseline data shows the two arms to be comparable on every primary nutrition outcome and on the main household characteristics used for matching, with three documented exceptions to be controlled for at endline. The comparison is therefore sound for its purpose – provided the endline analysis adjusts for those exceptions and the limitation is restated whenever impact figures are presented.

### 3.6 Household Selection

The protocol specified systematic random sampling within each selected village. On arrival, the team obtains the list of households with children under five from the Anganwadi worker, calculates a sampling interval ( $k = \text{total eligible households} \div \text{households required}$ ), selects a random start, and then takes every  $k$ -th household.

This worked in most villages. Where it did not – because no under-five register was available, or because a selected household could not be found after repeat visits – teams used the random-walk method instead: starting from a defined point in the village and following a fixed rule for selecting households along a route.

Random walk is a recognised fallback but is weaker than systematic random selection, because the starting point and route introduce a degree of judgement. Enumerators were instructed not to substitute households at their own discretion – a household that could not be reached was to be reported to the supervisor, not quietly replaced with a more convenient neighbour.

### 3.7 Survey Instruments

Three instruments were used.

- Household questionnaire – twelve modules covering consent, household identification, respondent profile, the four diet-diversity and food security modules, WASH, agriculture, gender and decision-making, income and migration, and anthropometry. Administered in Hindi on KoboCollect, with an estimated 45–60 minutes per interview.
- FGD guide – used for 10 focus group discussions with youth, women, and mothers of children aged 6–23 months, covering dietary diversity, food security and child feeding.
- KII guide – used for 4 key informant interviews with frontline workers and community leaders.

The questionnaire was built with validation rules embedded in the application: mandatory fields, automatic skip logic (so that the child feeding module appeared only where a child aged 6–23 months was present), plausibility limits on weight, height and haemoglobin entries, and automatic calculation of age, diet-diversity scores and anthropometric z-scores. This removes a large class of arithmetic and routing errors at the point of data entry rather than trying to correct them afterwards.

A printed Hindi version of the questionnaire was carried as a fallback for device failure. Paper worksheets were also used alongside the tablet for manual calculation of the diet-diversity scores, as a cross-check on the application’s automatic scoring.

### 3.8 Training and Fieldwork

Twelve project staff were trained over two and a half days before fieldwork. The training covered the purpose of the survey, research ethics and consent, sampling procedure, question-by-question administration of the questionnaire, FGD facilitation, anthropometric measurement technique, and hands-on use of KoboCollect. A field-practice day took teams into real households, followed by a structured review of what went wrong and why. A final day covered rollout planning.

A specific session addressed the errors most likely to distort diet-diversity data: misreading the 24-hour recall period (it runs sunrise to sunrise, covering the night, not simply ‘the last day’), miscategorising foods between groups, and omitting food eaten outside the home – at the Anganwadi, at a relative’s house, or in the field.

Fieldwork ran from 20 July to 14 August 2026. Six two-member teams operated, three per district, with a target of 6–8 interviews per team per day. Teams reported progress daily to a district coordinator and were instructed to escalate problems rather than resolve them independently.

**Table 4. Achieved Sample**

|                              | Guna (Bamori) | Shivpuri (Pohri) | Total |
|------------------------------|---------------|------------------|-------|
| Intervention villages        | 10            | 9                | 19    |
| Control villages             | 10            | 9                | 19    |
| Households – intervention    | 153           | 154              | 307   |
| Households – control         | 152           | 153              | 305   |
| Total households             | 305           | 307              | 612   |
| Index children (0–59 months) | 301           | 300              | 601   |

*Note: Village-level detail is held in the project’s survey data file. The achieved household sample of 612 is marginally above the design target of 612 (306 per arm). Index children number 601 because three households could not be linked to a village record; see §3.9.*

### 3.9 Data Processing and Quality Assurance

Data quality was managed at three points: at entry, in the field, and during analysis.

#### At the point of entry

The KoboCollect application enforced mandatory fields, applied skip logic automatically, restricted anthropometric and haemoglobin entries to plausible ranges, and calculated ages, diet scores and z-scores from raw measurements. Validation checks confirmed that these controls worked: skip-pattern logic was correct in every record tested, and household size calculated from the demographic roster matched the application’s own total in all 612 households.

#### In the field

Teams reviewed and submitted completed forms daily rather than allowing data to accumulate on devices. Anthropometric measurements were taken by two people with cross-checking, as practised in training.

#### During analysis

Several processing decisions affect how the findings should be read, and each is stated here.

- Index child basis. All child anthropometry results use one child per household – the youngest child aged 0–59 months – in line with the sampling design. Where a household had two children of identical recorded age (five cases, almost certainly twins), the first-listed record was taken; the affected households are documented in the project’s internal data processing notes.
- Height measurement correction. WHO requires children under 24 months to be measured lying down and children 24 months and over to be measured standing, with a 0.7 cm correction applied where the position used does not match the child’s age. This correction was applied and independently verified as correct in every case where it could be checked.
- Implausible values excluded. Measurements producing z-scores outside the biologically plausible range set by WHO (height-for-age beyond  $\pm 6$ , weight-for-age beyond  $-6$  to  $+5$ , weight-for-height beyond  $\pm 5$ ) were excluded from the relevant calculations. These are almost certainly measurement or recording errors rather than real values. The number excluded is stated alongside each figure in Chapter 6.
- Records with unresolvable values dropped. A small number of records could not be assigned a weight-for-height score because the reference value required was not recoverable. Rather than estimate these, they are excluded from wasting calculations only, with the number stated. All other indicators for these children remain in the analysis.
- Three unlinked households. Three child records reference a household that does not appear in the household dataset. They are retained in overall counts but excluded from any comparison by district or arm, since neither can be determined for them.

A separate data validation exercise checked the full dataset for missing values, duplicates, out-of-range entries and logical inconsistencies. Its findings are summarised in the project’s internal data validation notes.

### 3.10 Haemoglobin Testing

Haemoglobin testing by finger-prick was included in the original design, to measure anaemia in women aged 15–49.

Testing was suspended part-way through fieldwork after an accuracy problem was identified with the measuring device. Readings taken before the suspension are retained in the dataset but are not analysed in this report. A partial dataset of uncertain accuracy would be worse than no dataset: it could not be relied upon for a baseline value, and any endline comparison against it would be unsound.

Haemoglobin data will be collected once the equipment issue is resolved, and the results issued as an addendum to this report. Chapter 2 reserves the indicator definitions and reporting position for that addendum. Anaemia is therefore absent from Chapter 6, and this should be read as work deferred rather than work omitted.

### 3.11 Ethics

Interviews could not begin without consent. Enumerators introduced themselves, explained the purpose of the survey and how the data would be used, and read a consent statement before proceeding. Participation was voluntary; respondents could decline any question or end the interview at any point without consequence.

A separate, additional consent was required for the finger-prick haemoglobin test, over and above general survey consent.

Personal identifying information is held separately from response data and results are reported only in aggregate. Collection, storage and processing follow the Digital Personal Data Protection Act, 2023.

Before any data was shared with international partners or consultants, all direct identifiers – names, device identifiers, GPS coordinates and consent-form images – were removed and record identifiers replaced with

anonymous references. The anonymisation procedure is documented in the project's internal data management file.

### Referral of identified cases

The survey identifies children and women with severe malnutrition. A formal referral system issuing written referral slips to families was not part of the survey design; the survey was a measurement exercise conducted by trained project staff rather than a clinical screening, and issuing medical referrals sat outside its remit.

Two things were done instead, and both are confirmed by the enumerators. First, at the time of measurement the family was advised to visit the health facility and the Anganwadi worker for that village was informed. In line with the instructions given to teams, the list of children identified as severely malnourished, together with the women identified with severe chronic energy deficiency, was handed to the Anganwadi worker on the same day, so that no case waited on the completion of data processing.

Second, once the full dataset had been cleaned and the anthropometric calculations independently verified, a consolidated village-level list was prepared and provided to the project field workers for continuing follow-up. This second list serves an ongoing purpose rather than a one-off one: biannual growth monitoring is a project activity, and children identified with severe acute malnutrition require regular monitoring under the ICDS protocol. The identified cases are therefore held within a recurring monitoring cycle rather than referred once and closed.

### 3.12 Limitations

Six limitations should be borne in mind when reading the findings.

| Limitation                                                         | What it means for the findings                                                                                                                                                                                                            |
|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Control villages were selected purposively, not by formal matching | The two arms are comparable on all primary nutrition outcomes and main household characteristics (§3.5), but three differences exist and must be controlled for at endline. Impact estimates should always be presented with this stated. |
| Random-walk substitution in some villages                          | Where no under-five register was available, household selection involved more judgement than systematic random sampling allows. The direction of any resulting bias is unknown.                                                           |
| Preparatory activities in 2024–25                                  | Kitchen gardens and poultry were introduced in some villages that later became intervention villages. Garden-related indicators therefore do not measure a clean pre-intervention state (Chapter 1, §1.5).                                |
| Haemoglobin data incomplete                                        | Anaemia – one of the most serious nutrition problems in these districts – is not measured in this edition (§3.10).                                                                                                                        |
| Diet indicators are descriptive, not powered                       | The survey is powered on stunting. Diet-diversity indicators give a reliable baseline value but the survey was not sized to detect small changes in them (Chapter 2, §2.6).                                                               |
| Small numbers in some sub-analyses                                 | Where a finding rests on a small number of cases – child rights awareness is the clearest example – the count is reported rather than converted into a percentage, and no inference is drawn.                                             |

None of these limitations undermines the central findings of this report. The scale of undernutrition documented in Chapters 5 and 6 is far too large, and too consistent across both arms and both districts, to be explained by any of them.

## Chapter 4 – Sample Profile

This chapter describes who was surveyed. It sets out what was achieved against what was planned, describes the households and the people in them, and – importantly for what follows – tests whether the intervention and control arms were comparable at the outset. Readers who want the nutrition findings can move to Chapter 5; this chapter is the reference for understanding whose situation those findings describe.

### 4.1 Achieved Sample

Fieldwork covered 612 households across 38 villages in the two districts, against a design target of 612 (306 per arm). The achieved sample matched the plan almost exactly.

**Table 1. Achieved Sample Against Plan**

|                              | Guna (Bamori) | Shivpuri (Pohri) | Total |
|------------------------------|---------------|------------------|-------|
| Intervention villages        | 10            | 9                | 19    |
| Control villages             | 10            | 9                | 19    |
| Households – intervention    | 153           | 154              | 307   |
| Households – control         | 152           | 153              | 305   |
| Total households surveyed    | 305           | 307              | 612   |
| Index children (0–59 months) | 301           | 300              | 601   |

*Note: Village-level detail is held in the project's survey data file. Index children number 601 rather than 604 because three households could not be matched to a village record and are excluded from district and arm comparisons (Chapter 3, §3.9).*

The two arms are almost identically sized (307 and 305 households), as are the two districts (305 and 307). This balance was not guaranteed – it is the result of the sampling design working as intended – and it means comparisons between arms and between districts are made on an even footing.

### 4.2 Who Answered the Questionnaire

The survey was answered overwhelmingly by women. This is by design: the questionnaire centres on household food, child feeding and maternal nutrition, and in these households those are matters women manage and know about.

**Table 2. Respondent Sex**

| Respondent         | Overall | Intervention | Control | Guna  | Shivpuri |
|--------------------|---------|--------------|---------|-------|----------|
| Female             | 85.1%   | 82.1%        | 88.2%   | 83.9% | 86.3%    |
| Male               | 14.4%   | 17.3%        | 11.5%   | 15.4% | 13.4%    |
| Other / not stated | 0.5%    | 0.7%         | 0.3%    | 0.7%  | 0.3%     |

The average respondent was 27.5 years old. Respondents in intervention villages were marginally older than those in control villages (28.4 against 26.6 years,  $p=0.005$ ). The gap is under two years and has no practical bearing on the nutrition findings, but it is recorded here for completeness.

### 4.3 Social Composition

Just under three-quarters of surveyed households are Scheduled Tribe – overwhelmingly Saharia, the community described in Chapter 1. This confirms the survey reached the population the project is designed to serve.

**Table 3. Social Category of Surveyed Households**

| Category                   | Overall | Intervention | Control | Guna  | Shivpuri |
|----------------------------|---------|--------------|---------|-------|----------|
| Scheduled Tribe (ST)       | 73.7%   | 74.9%        | 72.5%   | 67.9% | 79.5%    |
| Other Backward Class (OBC) | 19.9%   | 20.2%        | 19.7%   | 27.2% | 12.7%    |
| Scheduled Caste (SC)       | 5.9%    | 4.9%         | 6.9%    | 3.9%  | 7.8%     |
| General                    | 0.5%    | 0.0%         | 1.0%    | 1.0%  | 0.0%     |

The two arms are closely matched (74.9% and 72.5% ST). Between districts there is a real difference: Shivpuri villages are more heavily tribal (79.5%) while Guna has a larger OBC population (27.2% against 12.7%). This is a genuine feature of the two blocks rather than a sampling artefact, and it is worth holding in mind when reading the district comparisons in Chapter 7.

## 4.4 Education

Education levels are low, and this is one of the clearest findings in the whole sample. Two in five respondents have had no formal schooling at all.

**Table 4. Respondent Education**

| Level                         | Overall | Intervention | Control | Guna  | Shivpuri |
|-------------------------------|---------|--------------|---------|-------|----------|
| No formal education           | 40.4%   | 40.1%        | 40.7%   | 25.6% | 55.0%    |
| Literate, no formal schooling | 6.5%    | 4.6%         | 8.5%    | 3.0%  | 10.1%    |
| Primary or middle (Class 1–8) | 36.4%   | 36.8%        | 36.1%   | 46.9% | 26.1%    |
| Secondary or higher secondary | 12.9%   | 13.7%        | 12.1%   | 18.7% | 7.2%     |
| Graduate and above            | 3.6%    | 4.6%         | 2.6%    | 5.6%  | 1.6%     |

The district contrast is stark. In Shivpuri, 55.0% of respondents have no formal education – more than double the 25.6% recorded in Guna. Fewer than one in ten Shivpuri respondents reached secondary level.

This has a direct practical consequence for the project. Nutrition messaging that depends on written material will not reach a majority of households in Shivpuri. Demonstration, verbal explanation and visual communication are not merely preferable there; they are the only approaches likely to work at scale.

## 4.5 Households and Children

The average surveyed household has 6.1 members. Households in Guna are substantially larger than those in Shivpuri – 7.1 members against 5.1 – reflecting the more common joint-family structure there, consistent with the land-ownership pattern described in Chapter 7.

**Table 5. Household Size and Children Under Five**

| Measure                             | Overall | Intervention | Control | Guna | Shivpuri |
|-------------------------------------|---------|--------------|---------|------|----------|
| Mean household size                 | 6.1     | 6.0          | 6.2     | 7.1  | 5.1      |
| Mean children under 5 per household | 1.65    | –            | –       | –    | –        |

Every surveyed household contains at least one child under five, since that was the eligibility condition. On average each has 1.65 such children – meaning just under half of households have two or more. This is why the index child rule matters: without it, larger families would carry disproportionate weight in the child nutrition results (Chapter 3, §3.3).

**Table 6. Age and Sex of Index Children**

| Age group    | Number of children | Share |
|--------------|--------------------|-------|
| 0–5 months   | 91                 | 15.1% |
| 6–11 months  | 113                | 18.7% |
| 12–23 months | 178                | 29.5% |
| 24–35 months | 102                | 16.9% |
| 36–59 months | 120                | 19.9% |
| Total        | 604                | 100%  |

The index children have a mean age of 20.9 months and a median of 18 months. Because the rule selects the youngest child in each household, the sample skews young by design: almost two-thirds are under two years old. This is analytically helpful, since the 6–23 month window is when complementary feeding is established and when stunting typically takes hold. Boys and girls are close to evenly represented (318 boys, 286 girls).

## 4.6 Household Circumstances

Three further characteristics describe the conditions these households live in. Each is examined more fully later in the report; they are introduced here as part of the sample description.

**Table 7. Selected Household Characteristics**

| Characteristic                                 | Overall | Intervention | Control | Guna  | Shivpuri |
|------------------------------------------------|---------|--------------|---------|-------|----------|
| Household reports a chronic illness            | 5.1%    | 2.6%         | 7.5%    | 6.6%  | 3.6%     |
| Household reports any addiction                | 79.1%   | 75.9%        | 82.3%   | 65.9% | 92.2%    |
| Receives at least one social protection scheme | 82.8%   | 81.4%        | 84.3%   | 95.7% | 70.0%    |

Two of these figures stand out. Reported addiction – overwhelmingly tobacco use – affects almost four in five households, rising to 92.2% in Shivpuri. And while social protection coverage is high overall at 82.8%, the district gap is wide: 95.7% of Guna households receive at least one scheme against 70.0% in Shivpuri. Chapter 7 examines which schemes reach which households, and finds that the maternal nutrition schemes most relevant to this project are among the least accessed.

## 4.7 Were the Two Arms Comparable?

Chapter 3 set out why this question matters: control villages were selected purposively rather than by formal matching, so comparability has to be demonstrated from the data rather than assumed. Section 3.5 tested the primary nutrition outcomes and found no significant differences. The table below extends that test to the household characteristics described in this chapter.

**Table 8. Baseline Comparability of Intervention and Control Arms**

| Characteristic               | Intervention | Control  | p-value | Significant?    |
|------------------------------|--------------|----------|---------|-----------------|
| Social category              | 74.9% ST     | 72.5% ST | 0.240   | No              |
| Education (grouped)          | –            | –        | 0.253   | No              |
| Household size               | 6.0          | 6.2      | 0.154   | No              |
| Receives social protection   | 81.4%        | 84.3%    | 0.628   | No              |
| Household addiction          | 75.9%        | 82.3%    | 0.065   | No (borderline) |
| Respondent age               | 28.4 yrs     | 26.6 yrs | 0.005   | Yes             |
| Chronic illness in household | 2.6%         | 7.5%     | 0.004   | Yes             |

Five of the seven characteristics show no significant difference between the arms, including every one that would normally be used for matching – social category, education, household size and social protection access. Household addiction is borderline and does not reach the conventional threshold.

Two characteristics do differ. Respondents in intervention villages are on average 1.8 years older, which is statistically detectable but too small to matter substantively. Chronic illness is reported nearly three times more often in control households (7.5% against 2.6%); the absolute numbers are small, but this should be carried forward as a covariate in the endline analysis, together with the food insecurity difference identified in Chapter 3.

Taken with the nutrition outcome results in Section 3.5, the overall picture is of two arms that are well matched on the characteristics that matter for this study, with a small number of documented exceptions to be controlled for. That is a sound basis for the comparison the project intends to make in 2029.

## 4.8 Summary

- The survey achieved its target: 612 households across 38 villages, evenly split between arms (307 and 305) and districts (305 and 307).
- Respondents were predominantly women (85.1%), average age 27.5 years.
- Households are overwhelmingly Scheduled Tribe (73.7%), confirming the survey reached the intended Saharia population.
- Education is low – 40.4% of respondents have no formal schooling, rising to 55.0% in Shivpuri, with direct implications for how the project communicates.
- Households average 6.1 members and 1.65 children under five; index children average 20.9 months, with two-thirds under two years.
- The two arms are comparable on social category, education, household size and social protection access, with two documented differences – respondent age and chronic illness – to be controlled for at endline.

*Sources for this chapter: Baseline survey household dataset (612 households) and Index Child dataset (604 index children), Samposhan Baseline Master file. Statistical tests computed in Python (scipy.stats). Village-level achieved sample and data validation notes are held in the project's internal data files.*

## Chapter 5 – Food Security and Dietary Diversity

This chapter presents what people in these villages actually eat, and how secure their food supply is. It covers four measures – household dietary diversity, women’s dietary diversity, young child feeding, and household food insecurity – and closes with a finding that sits uneasily alongside them: the near-universal consumption of packaged and fried snack foods.

Read together, these results describe a population eating enough starchy food to fill stomachs but very little else. The single most important finding in this chapter, for programme purposes, is set out in Section 5.3: for young children, the problem is not how often they are fed, but what they are fed.

### 5.1 Household Dietary Diversity (HDDS)

HDDS counts how many of twelve food groups anyone in the household ate in the previous 24 hours. It measures the variety of the household food supply, and by extension the household’s economic access to a range of foods. The project target is an average score of at least 5.

**Table 1. Household Dietary Diversity Score**

| Measure                                        | Overall | Intervention | Control | Guna  | Shivpuri |
|------------------------------------------------|---------|--------------|---------|-------|----------|
| Mean HDDS – 12-group (FAO standard)            | 4.47    | 4.64         | 4.30    | 4.15  | 4.79     |
| Households reaching target $\geq 5$ (12-group) | 48.0%   | 53.4%        | 42.6%   | 35.4% | 60.6%    |
| Mean HDDS – 11-group (NIN-aligned)             | 4.06    | 4.13         | 3.98    | 3.87  | 4.26     |
| Households reaching target $\geq 5$ (11-group) | 30.7%   | 33.1%        | 28.2%   | 20.0% | 41.4%    |
| Mean HDDS – 10-group (condiments excluded)     | 3.23    | 3.26         | 3.19    | 3.01  | 3.45     |
| Households reaching target $\geq 5$ (10-group) | 10.9%   | 11.0%        | 10.8%   | 5.2%  | 16.6%    |

*Note: Figures for the 12-group scale: median 4.0, standard deviation 1.30; differences statistically significant by arm ( $p=0.001$ ) and by district ( $p<0.001$ ). The 12-group scale follows the FAO standard specified in the project protocol. The 11-group scale merges pulses/legumes/nuts/seeds with oils/fats, following the alignment used by the National Institute of Nutrition (NIN); the 10-group scale further excludes spices, condiments and beverages, which supply no meaningful micronutrient diversity. Target is an absolute count of  $\geq 5$  groups on each scale.  $n=612-613$  households.*

The average household eats from between four and five food groups a day on the 12-group FAO scale, against a target of five, and just under half of households (48.0%) already meet the target. That is a less dire starting point than it might appear – but it depends heavily on how the food groups are defined. Re-scored on the 11-group NIN-aligned convention, the mean falls to 4.06 and the share reaching target to 30.7%. Excluding spices, condiments and beverages as well – a 10-group scale – the mean falls further to 3.23 and only 10.9% of households still reach the target of five. Roughly four in five households that appear to “reach target” on the 12-group scale do so only because condiments, oils and pulses are counted alongside cereals; strip those out and the picture changes sharply. The composition of the diet, not the raw count, is what matters, as the next table shows.

**Table 2. What Households Actually Ate (Previous 24 Hours)**

| Food group                                                  | Overall | Intervention | Control | Guna  | Shivpuri |
|-------------------------------------------------------------|---------|--------------|---------|-------|----------|
| Cereals                                                     | 98.9%   | 99.3%        | 98.4%   | 99.3% | 98.4%    |
| Spices, condiments, beverages                               | 83.2%   | 87.9%        | 78.4%   | 85.2% | 81.1%    |
| Pulses/legumes/nuts/seeds + oils/fats (merged, NIN-aligned) | 86.1%   | 91.2%        | 81.0%   | 81.3% | 91.2%    |
| White roots and tubers                                      | 48.0%   | 45.3%        | 50.8%   | 42.3% | 53.7%    |
| Vegetables                                                  | 42.5%   | 37.1%        | 47.9%   | 49.2% | 35.8%    |
| Milk and dairy                                              | 27.9%   | 33.9%        | 22.0%   | 19.3% | 36.5%    |
| Fruits                                                      | 11.3%   | 11.1%        | 11.5%   | 4.6%  | 17.9%    |
| Sweets                                                      | 2.9%    | 3.3%         | 2.6%    | 0.3%  | 5.5%     |
| Fish and seafood                                            | 2.3%    | 2.6%         | 2.0%    | 2.3%  | 2.3%     |
| Eggs                                                        | 1.6%    | 2.0%         | 1.3%    | 1.3%  | 2.0%     |
| Meat and poultry                                            | 1.3%    | 0.7%         | 2.0%    | 1.3%  | 1.3%     |

*Note: Sorted by overall prevalence on the 12-group scale. The merged pulses/oils row reflects the 11-group NIN-aligned and 10-group condiments-excluded scales in Table 1.*

The pattern is stark. Cereals reach almost every household. Spices, condiments and beverages – tea, salt, chilli – reach four in five, and count towards the score without adding meaningful nutrition. Their effect on the score is large: dropping this one group alone accounts for most of the gap between the 11-group mean (4.06) and the 10-group mean (3.23) in Table 1, and it is the single biggest reason the 12-group “target reached” figure (48.0%) is more than four times the 10-group figure (10.9%). Beyond that, the diet thins out quickly.

Animal-source foods are effectively absent. Meat reaches 1.3% of households, eggs 1.6%, fish 2.3%. Fruit reaches 11.3%. Dairy, at 27.9%, is the only animal-source food with any real presence, and even that reaches barely a quarter of households.

This is the central nutritional problem in these villages, and it is not primarily about quantity. These are the food groups that supply iron, vitamin A, vitamin B12, zinc and high-quality protein – the nutrients whose absence produces stunting and anaemia. A household can eat three full meals a day, score four on HDDS, and still be short of almost every micronutrient a growing child needs.

Two district differences are worth noting. Fruit consumption in Guna is 4.6% against 17.9% in Shivpuri. Oils and fats show the reverse and larger gap – 43.3% in Guna against 87.0% in Shivpuri. Chapter 7 returns to these when discussing agriculture and market access.

The focus group discussions add two points on how food actually reaches these households. Purchasing is not always cash-based: participants described buying from village shops and travelling vendors by paying in wheat or in kind, and households without land are frequently paid in grain rather than money for agricultural labour. Diversity is also markedly seasonal – vegetables are most available in the monsoon and winter, while in summer households buy if they have cash and manage on credit if they do not. In one village, women reported drying and storing pulses in summer specifically to carry the household through the lean months, an existing coping practice the project could build on.

On the Public Distribution System, participants confirmed reliable supply of five kilograms of grain per person, but in one Shivpuri village said that when the wheat smells stale it is sold on and replacement grain bought from the market – an indication that quantity is adequate while quality is not always so.

“मिलने वाले सरकारी गेहूँ में महक आने पर लोग उसे बेच देते हैं और किराने की दुकान या बाजार से नया गेहूँ, दालें या सब्जी वाले से सब्जी खरीदते हैं।” – Women’s group, Shivpuri (FGD-2)

## 5.2 Women’s Dietary Diversity (MDD-W)

Women of reproductive age have higher micronutrient requirements than the household average, particularly during pregnancy and breastfeeding. MDD-W asks whether a woman ate from at least 5 of 10 food groups in the previous day – a validated threshold below which a diet is unlikely to supply adequate micronutrients.

**Table 3. Women’s Dietary Diversity (Women 15–49)**

| Measure                            | Overall | Intervention | Control | Guna | Shivpuri |
|------------------------------------|---------|--------------|---------|------|----------|
| Mean number of food groups (of 10) | 2.65    | 2.75         | 2.57    | 2.59 | 2.72     |
| Women meeting MDD-W (≥5 groups)    | 3.7%    | 3.1%         | 4.3%    | 1.0% | 6.5%     |

Note: Based on 592 households with an eligible woman aged 15–49 present and consenting.

**Fewer than 4 in 100 women meet the minimum.** The average woman ate from between two and three food groups yesterday – half the threshold considered adequate. In Guna, just 1.0% of women reached it. This is one of the most severe findings in the entire baseline, and it applies to the same women who are pregnant, breastfeeding, and anaemic.

The figure of 3.7% should be read alongside the household result. Household diversity averages 4.47 groups; women individually manage 2.65. Women are eating less varied food than their households as a whole – consistent with a pattern, well documented in this region, where women eat last and eat least.

The focus group discussions explain part of this gap. Participants in Shivpuri described men eating first, justified on the grounds that men earn for the family and should therefore be fully fed. Women in one Guna village said that meat, fish and eggs are largely eaten by men outside the home, where the household does not see it – so these foods can register in a household-level measure while never reaching the women. "Some participants were nonetheless clear about what an adequate diet contains: fruit was described as something that builds blood and strength, indicating that knowledge is present among more exposed participants, though, as §5.4 discusses, most women in the discussions could not describe what a nutritious diet contains, and for them awareness remains a gap alongside access.

“मांस, मछली और चिकन कुछ ही परिवार में खाते हैं, महिलाएं नहीं खाती हैं, आदमी बाहर खा लेते हैं तो पता नहीं चलता है।” – Women’s group, Badhanpur, Guna

## 5.3 Young Child Feeding (MAD)

Minimum Acceptable Diet applies to children aged 6–23 months, the window when breast milk alone is no longer sufficient and complementary feeding determines whether a child grows or falters. It combines two or three conditions: dietary diversity, meal frequency, and – for children not breastfed – milk feed frequency. All must be met.

This is the most informative indicator in the chapter, because breaking it into components shows precisely where feeding is failing.

**Table 4. Minimum Acceptable Diet and Its Components (Children 6–23 Months, n=301)**

| Component                                     | Overall | Intervention | Control | Guna  | Shivpuri |
|-----------------------------------------------|---------|--------------|---------|-------|----------|
| MDD – ate ≥5 of 8 food groups                 | 1.3%    | 2.6%         | 0.0%    | 0.7%  | 1.9%     |
| MMF – fed often enough                        | 40.2%   | 41.9%        | 38.4%   | 33.8% | 46.2%    |
| MMFF – enough milk feeds (non-breastfed only) | 5.0%    | 5.8%         | 4.1%    | 3.4%  | 6.4%     |
| MAD – met all applicable conditions           | 0.7%    | 1.3%         | 0.0%    | 0.7%  | 0.6%     |

*Note: Mean child dietary diversity score: 2.21 of 8 food groups.*

**Frequency is not the problem. Diversity is.** Four in ten young children (40.2%) are already fed often enough to meet the international standard. But only 1.3% eat a diet varied enough. Because MAD requires both, only 0.7% – two children in three hundred – achieve an acceptable diet overall. A project seeking to improve young child nutrition here should concentrate on what goes into the bowl, not on how many times the bowl is filled.

This is the clearest programmatic finding in the baseline. It is also encouraging in one respect: caregivers are already feeding their children regularly. The feeding practice is in place; what is missing is access to – and use of – a wider range of foods. That is a more tractable problem than changing feeding frequency, and it points directly at the project’s kitchen garden, poultry and dietary diversification activities.

One supply-side factor deserves separate mention. Take-home ration and supplementary food from the Anganwadi centre are widely refused on quality grounds rather than declined on principle. Participants described grit in the food, a stale smell in the packets and a bitter taste; in one Shivpuri village the rice khichdi is reportedly given to cattle rather than eaten. An Anganwadi worker herself confirmed the grit and smell and said the matter had been reported to the department. Where quality was acceptable, participants said the whole household ate it – which points to a second issue, since supplementary food intended for a child is being shared across the family.

“सत्तू खाया जाता है, लेकिन कड़वा लगने के कारण चावल की खिचड़ी बच्चे या घर का कोई सदस्य नहीं खाता और उसे गाय को दे दिया जाता है।” – Women lactating with 6–23 month children, Mahaloni, Shivpuri (FGD-1)

This is a supply-side failure rather than a behavioural one, and it is not addressable through counselling. It is, however, addressable through advocacy with the department, and the Anganwadi worker’s own testimony makes that case stronger.

## 5.4 Household Food Insecurity (HFIAS)

HFIAS asks nine questions about the household’s experience over the previous four weeks, moving from anxiety about food running out, through compromises on quality, to actual reductions in the quantity eaten.

**Table 5. Household Food Insecurity Classification**

| Category             | Overall | Intervention | Control | Guna  | Shivpuri |
|----------------------|---------|--------------|---------|-------|----------|
| Food secure          | 50.2%   | 51.5%        | 48.9%   | 52.8% | 47.6%    |
| Mildly food insecure | 35.1%   | 37.5%        | 32.8%   | 33.1% | 37.1%    |

| Category                 | Overall | Intervention | Control | Guna | Shivpuri |
|--------------------------|---------|--------------|---------|------|----------|
| Moderately food insecure | 8.8%    | 8.5%         | 9.2%    | 8.9% | 8.8%     |
| Severely food insecure   | 5.9%    | 2.6%         | 9.2%    | 5.2% | 6.5%     |
| Mean HFIAS score (0–27)  | 1.91    | 1.41         | 2.41    | 1.62 | 2.19     |

Note: Score difference significant by arm ( $p < 0.001$ ) and district ( $p = 0.015$ ).

Half of households register as food secure on this scale, and the average score is low. At first reading this appears to contradict the diet findings – but it does not. HFIAS measures whether a household worried, compromised or went without. It does not measure whether what they ate was nutritious.

A household eating roti and tea three times a day, every day, with no anxiety about the supply running out, is food secure by this measure and severely undernourished by every other measure in this chapter. That is precisely the situation these results describe.

**Table 6. What Households Experienced (Previous Four Weeks)**

| Experience                                | Overall | Intervention | Control |
|-------------------------------------------|---------|--------------|---------|
| Worried food would run out                | 43.8%   | 39.4%        | 48.2%   |
| Unable to eat preferred foods             | 41.0%   | 36.2%        | 45.9%   |
| Ate a limited variety of foods            | 27.0%   | 18.2%        | 35.7%   |
| Ate smaller meals than needed             | 12.4%   | 8.1%         | 16.7%   |
| Ate fewer meals in a day                  | 10.3%   | 6.5%         | 14.1%   |
| Had no food of any kind in the house      | 5.4%    | 2.3%         | 8.5%    |
| Went to sleep hungry                      | 3.4%    | 1.0%         | 5.9%    |
| Went a whole day and night without eating | 3.3%    | 1.6%         | 4.9%    |

The milder experiences are widespread: more than four in ten households worried about food running out or could not eat what they would have preferred. The severe experiences are rarer but real – around one household in twenty had no food at all at some point in the past month, and one in thirty went a whole day and night without eating.

Control households report more food insecurity than intervention households on every item. This is the baseline imbalance identified in Chapter 3 (§3.5) and must be carried into the endline analysis as a covariate.

### What households said: why food feels secure

The focus group discussions explain the HFIAS results directly. Participants were clear that year-round availability of food is not, for most families, a pressing worry – and they identified four reasons why.

The first is the Public Distribution System. Subsidised food grain arrives reliably and cheaply, and for most households it forms the base of the diet. The second is own production: most families grow part of what they eat (84.6% farm, as Chapter 7 sets out). The third is payment in kind – households working on others' harvests are frequently paid in grain rather than cash, which adds directly to the household store without requiring any money to change hands.

The fourth is cash transfer. For the Saharia community, the Madhya Pradesh government ran the Poshan Aahar Yojana, a cash benefit intended to support healthier food consumption. This has since been replaced by the Ladli Behna Yojana, which participants said helps them cope with periods of scarcity. The survey data supports this: Ladli

Behna is by some margin the most widely received scheme in these villages, reaching 50.3% of households (Chapter 7, §7.6).

Participants also described what happens when food does run short. Going to sleep hungry, they said, is rare – and when a household is genuinely short, it borrows rather than goes without. Grain or money is borrowed from neighbours or relatives, or goods are taken on credit from a shop in the village, and repaid once the household's own harvest comes in or once a migrant member returns with wages. This is a real and functioning coping mechanism, and it is why the severe end of the HFIAS scale registers so few cases: 3.4% of households reported going to sleep hungry and 3.3% went a whole day and night without eating.

Taken together, this is a coherent picture. These households are, in the specific sense HFIAS measures, reasonably food secure. Grain is available, cheap, and supplemented by production, payment in kind, cash transfers and, when necessary, credit. What the HFIAS result does not capture – and what Sections 5.1 to 5.3 do – is that the food this system reliably delivers is almost entirely cereal.

### The constraint is money and knowledge

One further finding from the discussions deserves particular attention. Asked what they would eat if they could, participants answered without hesitation: more meat, fish, chicken, eggs and fruit as food preference. They also confirmed that this is not hypothetical – when a migrant member returns home with cash, the household's diet visibly changes, and these are the foods it changes towards.

This matters for how the project frames its work, though it needs to be stated carefully. Among participants who spoke, the low dietary diversity documented in this chapter is not primarily a problem of awareness or preference: they named the foods they lack and already want them. The binding constraint for these households is purchasing power, compounded by the fact that the entitlement system delivering food most reliably – the PDS – delivers grain rather than the nutrient-dense foods people say they want. It should be noted, however, that in several groups a minority did most of the talking; among young men these were generally those with migration experience, and among women the better-educated. The Saharia are a community in which people speak sparingly in group settings, and most women present were not able to describe what a nutritious diet consists of. Awareness is therefore established among the more exposed and remains a gap for many others.

Both constraints are therefore real and they apply to different people. Interventions that increase access – household production of vegetables, eggs and poultry, as sub-objective UZ2 envisages, or improved uptake of cash-based entitlements – address the larger structural problem. Nutrition education remains necessary but should be designed for participants with no prior exposure rather than for the articulate minority who set the tone in a group discussion. Participants also described wild foods growing locally – kakora and green leafy varieties appearing in the middle of the rainy season – which are gathered and eaten but not cultivated or systematically used. These are free, seasonal, locally adapted and already accepted, and represent a low-cost contribution to the vegetable gap.

## 5.5 Packaged and Fried Snack Foods

Households were asked which shop-bought packaged or fried snack foods their members eat, how often they buy them, and how much they spend.

**Table 7. Packaged and Fried Snack Consumption**

| Item                     | Overall | Intervention | Control | Guna  | Shivpuri |
|--------------------------|---------|--------------|---------|-------|----------|
| Chips (potato or banana) | 84.8%   | 82.1%        | 87.5%   | 83.9% | 85.7%    |

| Item                                 | Overall | Intervention | Control | Guna  | Shivpuri |
|--------------------------------------|---------|--------------|---------|-------|----------|
| Kurkure, twisted snacks, soya sticks | 83.0%   | 81.4%        | 84.6%   | 85.6% | 80.5%    |
| Sev-mixture / namkeen                | 48.4%   | 46.6%        | 50.2%   | 48.2% | 48.5%    |
| Crax / finger snacks                 | 18.3%   | 16.9%        | 19.7%   | 28.9% | 7.8%     |
| Cake                                 | 7.2%    | 6.8%         | 7.5%    | 3.9%  | 10.4%    |
| Buys none of these                   | 9.5%    | 9.1%         | 9.8%    | 8.2%  | 10.7%    |

Nine in ten households (90.5%) buy at least one of these items. Among those that do, two-thirds (66.4%) buy them every day, and a further 21.8% four to five days a week. Median spending is ₹150 per week.

### Why households buy them

On the face of it, these figures are hard to reconcile with the affordability constraint described in Section 5.4. Households that say they cannot afford eggs or fruit are spending around ₹600 a month on chips and kurkure. The focus group discussions explain the apparent contradiction, and the explanation matters for how the project should respond.

Packaged snacks in these villages are bought for children, not for the household. Participants were consistent on this point. A packet is bought to quieten a crying child, or given by a father or grandparent as an expression of affection – often the small, affordable indulgence available to an adult who has little else to give. It is a caregiving act carried out in the moment, not a considered decision about the household food budget.

This is why the spending persists alongside genuine scarcity. A five-rupee packet bought in response to a distressed child does not compete, in the mind of the person buying it, with an egg or a piece of fruit. The two purchases are not weighed against each other; they belong to different categories of decision.

The structure of the purchase reinforces this. Snacks cost a few rupees at a time, keep indefinitely, need no preparation, and are stocked in every village shop. Eggs, meat and fruit require a larger single outlay, spoil quickly, and are less consistently available locally. A household with income arriving irregularly and in small amounts can buy the first far more easily than the second, even while preferring the second – which is exactly what participants said they preferred.

### Biscuits are a different case

One item stands apart. Participants reported that biscuits, unlike the other items listed, are bought as a substitute for food – given to a child in place of a meal rather than alongside one. The rest are treats; biscuits are, in practice, being used as an alternative to feeding.

This is the more serious finding of the two, and it connects directly to Section 5.3. A biscuit displacing a meal for a child aged 6 to 23 months displaces it from precisely the window in which complementary feeding determines whether a child grows or falters – the same window in which only 1.3% of children in this survey achieved adequate dietary diversity, and in which stunting rises from 23.5% to 56.2% (Chapter 6, §6.1). Biscuits supply refined flour, sugar and fat. They do not supply the iron, vitamin A, protein or zinc that a child of that age needs.

### What this means for the project

Read this way, packaged snack consumption is not evidence of a population choosing junk food over nutritious food. It is evidence of three things the project can act on.

- A caregiving behaviour, not a dietary preference. The entry point is not persuading adults that chips are unhealthy – participants are unlikely to disagree. It is offering something else that works when a child is crying, and that a father or grandmother can give with the same sense of doing something kind. An egg, a banana or a handful of roasted groundnuts can serve that role if it is available and affordable at the moment it is needed.
- A displacement risk that is specific and nameable. Biscuits replacing meals for young children is a distinct, targetable message for counselling at the Anganwadi centre and in home visits, quite separate from general advice about processed food.
- A small but real recurring household expenditure on food for children. Around ₹150 a week is already being spent on feeding children something. Redirecting even part of that towards eggs, fruit or milk would represent a meaningful nutritional gain, and does so without asking households to find money they do not have.

The last point deserves emphasis, because it changes the framing of the affordability constraint identified in Section 5.4. Cash for children's food is not entirely absent. What is absent is a nutritious option that is as cheap, as available, as convenient and as immediately satisfying to a child as the packet on the shop shelf. Making that option exist locally – through kitchen gardens, backyard poultry and local availability, as sub-objective UZ2 envisages – addresses the problem far more directly than messaging alone.

The Shivpuri discussions add precise figures that support this reading. Participants described spending ₹30–40 a day on besan papdi and similar snacks, and ₹10 a day on two ₹5 sachets of milk powder used mainly for tea. Set against a Ladli Behna transfer of ₹1,500 a month, which participants said is largely consumed by salt, chilli and oil, this is a substantial share of discretionary spending. Participants also described buying a banana when a child cries and asks for one – an existing, culturally accepted alternative to a packet of chips, purchased through exactly the same caregiving impulse.

*“बच्चे जब केला मांगते हैं और रोते हैं, तब उन्हें दिला दिया जाता है; न रोने पर नहीं दिलाया जाता।” –*

Women lactating with 6–23 month children, Mahaloni, Shivpuri (FGD-1)

## 5.6 Summary

- Household dietary diversity averages 4.47 of 12 food groups (48.0% reaching the project target of 5) on the FAO standard scale, but falls to 4.06 (30.7%) on an 11-group NIN-aligned scale and to 3.23 (10.9%) once condiments are excluded – see §5.1.
- The composition of that diet is the problem, not the count: cereals reach 98.9% of households, but meat 1.3%, eggs 1.6%, fish 2.3% and fruit 11.3%. Spices, condiments and beverages alone account for most of the difference between the 12-group and 10-group scores.
- Only 3.7% of women aged 15–49 achieve minimum dietary diversity, averaging 2.65 of 10 food groups – lower than their households.
- Only 0.7% of children aged 6–23 months achieve a Minimum Acceptable Diet. Meal frequency is adequate for 40.2%, but dietary diversity for just 1.3%.
- Half of households register as food secure on HFIAS, but this measures anxiety and quantity, not nutritional quality – the two findings are consistent, not contradictory.
- 90.5% of households buy packaged or fried snacks, two-thirds of them daily, spending a median ₹150 per week.

---

*Sources for this chapter: Samposhan Baseline Master file, Main\_Sheet\_Cleaned (612 households; 592 with an eligible woman; 301 children aged 6–23 months). HDDS scored on the 12-group FAO standard per project protocol, with 11-group NIN-aligned and 10-group condiments-excluded scales presented alongside it in §5.1 as a sensitivity check. Statistical tests computed in Python (scipy.stats). Full disaggregated tables are available on request from the VSS M&E team.*

## Chapter 6 – Nutritional Status

Chapter 5 described what people eat. This chapter describes what that diet has done to their bodies. It presents measured height, weight and age for children under five, and measured height and weight for the women who care for them.

These are the project's headline impact indicators. The stunting figure in particular is the number against which the project's central target – a 40% reduction – will be judged in 2029.

**A note on the figures in this chapter.** All child results use the index child (one child per household) as specified in the sampling design, and are calculated from the corrected anthropometry dataset described in Chapter 3 (§3.9). Measurements falling outside the biologically plausible range set by WHO have been excluded; the number excluded is stated with each table. These figures supersede any earlier draft circulated before the data correction.

### 6.1 Stunting

Stunting means a child is too short for their age. It develops over months and years of inadequate diet and repeated illness, and after about two years of age it is largely irreversible. It is the clearest physical marker of chronic undernutrition.

**Table 1. Stunting Among Children Under Five (Index Child)**

| Measure                     | Overall | Intervention | Control | Guna  | Shivpuri |
|-----------------------------|---------|--------------|---------|-------|----------|
| Stunted (HAZ < -2)          | 51.2%   | 52.0%        | 50.5%   | 51.8% | 50.7%    |
| Severely stunted (HAZ < -3) | 30.1%   | –            | –       | –     | –        |
| Mean height-for-age z-score | -1.91   | -2.00        | -1.83   | -1.84 | -1.98    |

*Note: Based on 562 index children with a plausible height-for-age value; 39 records excluded as biologically implausible. No significant difference by arm ( $p=0.794$ ) or district ( $p=0.854$ ).*

**More than half of children in these villages are stunted.** At 51.2%, stunting here is around one and a half times the district figure of 35% reported in NFHS-5 (Chapter 1, §1.3) and well above the Madhya Pradesh and national averages. Almost a third of all children – 30.1% – are severely stunted, meaning they fall more than three standard deviations below the healthy reference. This is the single most serious finding in the baseline.

The age pattern shows how this develops.

**Table 2. Stunting by Child Age**

| Age group    | Stunted | Children measured |
|--------------|---------|-------------------|
| 0–5 months   | 23.5%   | 81                |
| 6–11 months  | 47.1%   | 104               |
| 12–23 months | 56.2%   | 162               |
| 24–35 months | 61.9%   | 97                |
| 36–59 months | 58.5%   | 118               |

Fewer than a quarter of infants under six months are stunted. By the end of the first year, nearly half are. By age two, more than three in five. The steepest deterioration happens between six and twenty-three months – exactly the window when complementary feeding begins and, as Chapter 5 showed, only 1.3% of children achieve adequate dietary diversity.

The two findings fit together precisely. Children arrive at six months in reasonable shape, largely protected by breastfeeding. What follows – a diet of cereals with almost no animal-source foods, fruit or diverse vegetables – cannot sustain normal growth. The damage is done in that window, and by two years of age it is largely permanent.

Boys and girls are affected almost equally (52.0% and 50.4%). There is no meaningful difference between intervention and control villages, or between the two districts.

The focus group discussions corroborate this account of where the damage occurs. Participants described complementary feeding beginning at three to five months in several villages, with biscuits, tea and toast among the first foods introduced, and reported that children eat chips and biscuits almost daily. They also described withholding green leafy vegetables, pulses and certain vegetables from children under two. The transition period identified in the data as critical is, on their own account, the period in which the diet narrows rather than widens.

“बच्चे चिप्स बिस्किट लगभग रोज खाते हैं।” – Women’s group, Dudhai, Guna

## 6.2 Underweight

Underweight means a child is too light for their age. It reflects both chronic and acute undernutrition combined, and is the indicator most commonly used in Indian government nutrition programmes, including the Anganwadi growth monitoring system.

**Table 3. Underweight Among Children Under Five (Index Child)**

| Measure                         | Overall | Intervention | Control | Guna  | Shivpuri |
|---------------------------------|---------|--------------|---------|-------|----------|
| Underweight (WAZ < -2)          | 49.1%   | 48.3%        | 49.8%   | 54.7% | 43.4%    |
| Severely underweight (WAZ < -3) | 24.5%   | –            | –       | –     | –        |
| Mean weight-for-age z-score     | -1.94   | -1.89        | -1.98   | -2.06 | -1.82    |

*Note: Based on 595 index children; 4 records excluded as biologically implausible. No significant difference by arm (p=0.770). District difference is significant (p=0.008).*

Almost half of children are underweight and a quarter severely so – again far above the district figure of 30.5% from NFHS-5. Underweight follows the same age gradient as stunting, rising from 28.6% among infants under six months to 59.0% among children aged three to five.

**The one significant district difference in this chapter.** Underweight affects 54.7% of children in Guna against 43.4% in Shivpuri (p=0.008) – an eleven-point gap. Notably, stunting and wasting show no such district difference. Guna’s children are lighter for their age without being shorter, which points to a difference in recent nutritional adequacy rather than long-term growth faltering.

This finding is worth carrying forward. Chapter 7 shows that Guna has larger households, greater dependence on own-farm production, and lower fruit consumption. Any of these could contribute, and the district-level programme response may reasonably differ between the two blocks/districts.

## 6.3 Wasting

Wasting means a child is too thin for their height. Unlike stunting, it reflects recent and acute undernutrition – a bout of illness, a lean season, a sudden drop in food intake. It can appear within weeks and, with adequate treatment, resolve within weeks.

**Table 4. Wasting Among Children Under Five (Index Child)**

| Measure                        | Overall | Intervention | Control | Guna  | Shivpuri |
|--------------------------------|---------|--------------|---------|-------|----------|
| Wasted (WHZ < -2)              | 27.1%   | 27.6%        | 26.7%   | 29.8% | 24.5%    |
| Severely wasted (WHZ < -3)     | 10.3%   | –            | –       | –     | –        |
| Mean weight-for-height z-score | -0.99   | -0.85        | -1.13   | -1.10 | -0.88    |

Note: Based on 553 index children; 31 records excluded as biologically implausible and 17 had no calculable value (Chapter 3, §3.9). No significant difference by arm ( $p=0.890$ ) or district ( $p=0.186$ ).

**Wasting here exceeds the WHO ‘very high’ threshold.** WHO classifies population wasting above 15% as ‘very high’ – the most severe category, warranting urgent public health attention. At 27.1%, these villages are well past that line, at roughly twice the district figure of 14% recorded in NFHS-5. Severe wasting alone, at 10.3%, is itself above the ‘very high’ threshold for total wasting.

Unlike stunting and underweight, wasting shows no age gradient – it runs between 23.5% and 29.6% across every age band. This is expected: wasting reflects current circumstances rather than accumulated history, so it affects infants and older children alike.

Because wasting responds relatively quickly to treatment, this figure represents the most immediately actionable finding in the chapter. It also represents an immediate caseload: more than one child in four measured during this survey was acutely undernourished at the time of measurement. Chapter 9 addresses what follows from that.

The discussions offer a plausible explanation for why acute undernutrition is so common. Asked why older children become thin, women in one Guna village answered directly that they leave for work and nobody is available to look after the children, and that vomiting and diarrhoea are frequent. Participants were also familiar with Nutrition Rehabilitation Centres and described the care received there positively, which suggests the treatment pathway is known and acceptable where cases reach it – the constraint is identification and referral rather than willingness.

“हम काम पर चले जाते हैं, कोई ध्यान नहीं रख पाता है... उल्टी दस्त हो जाते हैं” – Women’s group, Wagheri, Guna

## 6.4 Women’s Nutritional Status

Body Mass Index compares a woman’s weight to her height. A BMI below 18.5 indicates chronic energy deficiency (CED) – sustained undernutrition rather than a temporary dip.

**Table 5. Body Mass Index Among Women (15–49)**

| Category                   | Overall | Intervention | Control | Guna  | Shivpuri |
|----------------------------|---------|--------------|---------|-------|----------|
| Severe CED (BMI < 16.0)    | 8.6%    | 7.9%         | 9.2%    | 7.0%  | 10.2%    |
| Moderate CED (16.0–16.9)   | 11.8%   | 12.0%        | 11.6%   | 12.4% | 11.2%    |
| Mild CED (17.0–18.4)       | 22.2%   | 24.7%        | 19.8%   | 23.1% | 21.4%    |
| Normal (18.5–24.9)         | 53.5%   | 51.2%        | 55.8%   | 52.8% | 54.2%    |
| Overweight ( $\geq 25.0$ ) | 3.9%    | 4.1%         | 3.6%    | 4.7%  | 3.1%     |
| Any CED (BMI < 18.5)       | 41.3%   | 42.3%        | 40.3%   | 41.6% | 41.0%    |

Note: Based on 594 women with valid height and weight measurements. Mean BMI 19.3. No significant difference by arm ( $p=0.552$ ) or district ( $p=0.175$ ).

Two in five women are chronically energy deficient, and one in twelve severely so. Overweight is almost absent at 3.9% – this is a population facing undernutrition, not the dual burden seen in more urbanised settings.

The figure is remarkably uniform: no significant variation by arm or by district. Combined with the MDD-W finding in Chapter 5 – that only 3.7% of women achieve minimum dietary diversity – it describes a consistent picture of maternal undernutrition across the whole project area.

This matters beyond the women themselves. Maternal undernutrition before and during pregnancy is among the strongest predictors of low birth weight, and low birth weight is a principal pathway into child stunting. The 41.3% figure here is part of the explanation for the 51.2% figure in Section 6.1.

The focus group discussions identify a contributing factor the survey did not measure. Food restrictions during pregnancy and after delivery systematically remove high-value foods at the two periods of greatest nutritional demand. Eggs were avoided for fear of miscarriage, papaya and mango for fear of harm to the pregnancy or jaundice, and ghee, groundnut, curd and oil for various reasons. After delivery, restrictions on potato, brinjal and sour foods were reported to last from fifteen days to two months.

These beliefs are not universal, which matters. Women in one Guna village stated plainly that no restrictions apply during pregnancy in their village. That divergence is useful: it demonstrates the restrictions are social convention rather than fixed belief, and provides a local counter-example more persuasive than externally supplied advice.

*“अंडा खाने से – गर्भपात का डर रहता है। पपीता का गर्भ पर बुरा असर माना जाता है।”* – Women’s group, Shivpuri (FGD-2)

## 6.5 Anaemia

Anaemia was to be measured by finger-prick haemoglobin testing for women aged 15–49 and children aged 6–59 months, using WHO cut-offs.

As set out in Chapter 3 (§3.10), testing was suspended part-way through fieldwork after an accuracy problem was identified with the measuring device. The readings taken before suspension are retained in the dataset but are not analysed here: a partial dataset of uncertain accuracy could not support a reliable baseline value, and any endline comparison against it would be unsound.

Haemoglobin will be re-collected once the equipment issue is resolved, and the results issued as an addendum to this report using the definitions and cut-offs already set out in Chapter 2 (§2.3).

**This is a significant gap, and should be read as such.** NFHS-5 found around 73% of children under five and over half of women anaemic in these districts – among the highest burdens of any indicator in the project area, and the one most directly linked to the dietary pattern described in Chapter 5, where meat reaches 1.3% of households and eggs 1.6%. Completing the haemoglobin measurement should be treated as a priority, not a formality.

## 6.6 Infant and Young Child Feeding Practices

Two feeding practices were recorded for children aged 6–23 months, alongside the MAD components reported in Chapter 5.

**Table 6. Feeding Practices, Children 6–23 Months (n=301)**

| Practice                               | Overall | Intervention | Control | Guna  | Shivpuri |
|----------------------------------------|---------|--------------|---------|-------|----------|
| Still breastfeeding                    | 87.0%   | 85.2%        | 89.0%   | 85.5% | 88.5%    |
| Received breast milk yesterday         | 68.4%   | 77.4%        | 58.9%   | 79.3% | 58.3%    |
| Fed from a bottle with a nipple        | 13.0%   | 14.8%        | 11.0%   | 13.8% | 12.2%    |
| Mean solid or semi-solid feeds per day | 2.4     | –            | –       | –     | –        |

Continued breastfeeding is high: 87.0% of children aged six to twenty-three months are still being breastfed, which is a genuine strength and comfortably above the national average. This is one area where existing practice does not need changing.

Bottle feeding, at 13.0%, is a practice WHO discourages because of hygiene risk and its tendency to displace breastfeeding. It is not widespread here but is worth monitoring.

Taken with Chapter 5, the picture is consistent: breastfeeding is well established, children are fed reasonably often (2.4 solid feeds a day, with 40.2% meeting the minimum frequency standard), but what they are fed lacks the diversity needed for growth.

The focus group discussions qualify this picture in one important respect. Although breastfeeding is sustained, complementary feeding is frequently started earlier than recommended. Women in two Guna villages reported introducing other foods from three to five months, and the foods named were biscuits, tea and toast, milk-soaked roti and kurkure rather than prepared complementary foods. One Shivpuri group reported correct exclusive breastfeeding to six months, so the practice is not universal.

Participants also described specific foods withheld from children under two – green leafy vegetables, urad dal, brinjal and colocasia, the last because of a belief that it sticks in the child's stomach. These restrictions remove several of the food groups the diet is already short of, and they are specific enough to be addressed directly in counselling.

*“4 से 5 माह में बिस्कुट, रोटी, कुरकुरा, दूध रोटी देते हैं”* – Women's group, Salaiya Rai, Guna

## 6.7 Summary

- 51.2% of children under five are stunted and 30.1% severely stunted – around one and a half times the NFHS-5 district figure.
- 49.1% are underweight and 24.5% severely underweight. This is the only indicator showing a significant district difference (Guna 54.7% against Shivpuri 43.4%,  $p=0.008$ ).
- 27.1% are wasted and 10.3% severely wasted, well above the WHO 'very high' threshold of 15% and roughly double the NFHS-5 district figure.
- Stunting and underweight rise sharply between 6 and 23 months – the same window in which only 1.3% of children achieve adequate dietary diversity.
- 41.3% of women aged 15–49 are chronically energy deficient, with no significant variation by arm or district.
- Anaemia is not measured in this edition and will follow as an addendum.
- Intervention and control arms show no significant difference on any of the three child anthropometric indicators, confirming the two arms start from an equivalent position on the project's headline measures.

---

*Sources for this chapter: Samposhan Baseline Master file – Index\_Child sheet (601 index children linked to household district and arm) and Main\_Sheet\_Cleaned (594 women with valid anthropometry; 301 children aged 6–23 months). Anthropometry calculated against WHO Child Growth Standards 2006 using the corrected dataset (Chapter 3, §3.9). Statistical tests computed in Python (scipy.stats). NFHS-5 comparison figures as cited in Chapter 1. Full disaggregated tables are available on request from the VSS M&E team.*

## Chapter 7 – Determinants and Enabling Environment

Chapters 5 and 6 described what people eat and what it has done to them. This chapter describes the conditions that produce those outcomes: the water households drink, the land they farm, the income they earn, who decides how it is spent, and which government entitlements actually reach them.

These are not project impact indicators and carry no targets. They matter because they explain the findings, and because most of them are what the project can realistically change. One theme runs through the whole chapter: Guna and Shivpuri are structurally very different places, and area specific programme interventions will serve effectively.

### 7.1 Drinking Water

Water quality is directly linked to diarrhoeal illness, and diarrhoeal illness is one of the main pathways into wasting. A child in an otherwise adequate household can be wasted simply because they are repeatedly ill.

**Table 1. Main Source of Drinking Water**

| Source                                  | Overall | Intervention | Control | Guna  | Shivpuri |
|-----------------------------------------|---------|--------------|---------|-------|----------|
| Tubewell                                | 49.3%   | 48.2%        | 50.5%   | 87.2% | 11.7%    |
| Hand pump                               | 24.0%   | 19.9%        | 28.2%   | 1.6%  | 46.3%    |
| Unprotected well                        | 19.6%   | 28.3%        | 10.8%   | 0.3%  | 38.8%    |
| Public tap or standpipe                 | 4.4%    | 2.6%         | 6.2%    | 7.9%  | 1.0%     |
| Piped water at home                     | 2.3%    | 0.3%         | 4.3%    | 3.0%  | 1.6%     |
| Improved source (WHO/UNICEF definition) | 80.1%   | 71.0%        | 89.2%   | 99.7% | 60.6%    |

*Note: Improved sources are tubewells, hand pumps, public taps, piped supply and protected wells. Differences significant by arm and district (both  $p < 0.001$ ).*

**Two in five Shivpuri households drink from unprotected wells.** Guna has almost universal access to an improved source (99.7%). Shivpuri does not (60.6%), and 38.8% of its households rely on unprotected wells – water at real risk of contamination. This is the largest single infrastructure gap identified in the baseline, and it sits directly upstream of the wasting and diarrhoeal illness burden described in Chapter 6.

**Table 2. Water Availability and Distance**

| Measure                  | Overall | Intervention | Control | Guna  | Shivpuri |
|--------------------------|---------|--------------|---------|-------|----------|
| Available year-round     | 93.3%   | 91.9%        | 94.8%   | 93.1% | 93.5%    |
| Source within 500 metres | 78.4%   | 76.2%        | 80.7%   | 96.4% | 60.6%    |

Availability is not the problem – nine in ten households have water all year, with no district difference. Distance and safety are. Two in five Shivpuri households walk more than 500 metres for water, against one in twenty-five in Guna. That burden falls almost entirely on women, and it competes directly with time available for cooking, feeding and childcare.

Improving water safety in Shivpuri lies outside the project's direct scope, but the finding should be shared with district authorities and WASH partners. It is a plausible contributor to the nutrition outcomes this project is trying to change.

The discussions show that water scarcity affects more than drinking water alone. In one Shivpuri village with a single open well, participants reported carrying water on their heads for the whole village, and said that although toilets

had been built, none could be used for lack of water – everyone continued to defecate in the open. Household water treatment was reported as not practised at all. In Guna, a Jal Jeevan Mission pipeline had been laid but was not yet functional, leaving households dependent on borewells and government handpumps.

*“कुछ परिवारों में शौचालय बने हैं, लेकिन पानी की भारी किल्लत के कारण कोई भी इनका उपयोग नहीं कर पाता और सभी को मजबूरन बाहर जाना पड़ता है।” – Youth group, Chhota Lengda, Shivpuri (FGD-3)*

Water therefore constrains three outcomes at once in Shivpuri: drinking water safety, sanitation use and kitchen gardening (§7.3). Household cleanliness was also observed to be poor during field visits, and participants in several groups described repeated vomiting and diarrhoea among children. Water scarcity and hygiene reinforce one another – households short of water cannot maintain handwashing, food hygiene or sanitation – and the resulting illness burden feeds directly into the wasting figures in Chapter 6. Water carries the highest cross-sector return of any single intervention identified in this baseline, and hygiene promotion belongs within the nutrition response rather than alongside it.

## 7.2 Agriculture

Just over four in five households (84.6%) farm – 89.5% in Guna and 79.8% in Shivpuri. For most, farming is the main livelihood as well as the main source of food.

**Table 3. Adoption of Agricultural Practices (Among Farming Households, n=518)**

| Practice                                   | Overall | Intervention | Control | Guna  | Shivpuri |
|--------------------------------------------|---------|--------------|---------|-------|----------|
| Crop rotation                              | 54.6%   | 52.1%        | 57.2%   | 48.7% | 61.2%    |
| Intercropping                              | 53.7%   | 53.3%        | 54.1%   | 25.3% | 85.3%    |
| Millets (kodo, kutki, bajra, sawa, kangni) | 41.7%   | 41.0%        | 42.4%   | 0.7%  | 87.3%    |
| Minimum tillage                            | 26.4%   | 31.0%        | 21.8%   | 14.7% | 39.6%    |
| Rainwater harvesting                       | 15.6%   | 16.5%        | 14.8%   | 2.6%  | 30.2%    |
| Organic manure                             | 12.9%   | 15.3%        | 10.5%   | 18.7% | 6.5%     |
| Mulching                                   | 12.0%   | 7.3%         | 16.7%   | 6.2%  | 18.4%    |
| Raised bed bucket system (RBBS)            | 1.9%    | 2.7%         | 1.2%    | 0.4%  | 3.7%     |
| Organic pesticide                          | 0.2%    | 0.4%         | 0.0%    | 0.0%  | 0.4%     |
| Organic tonic                              | 0.2%    | 0.4%         | 0.0%    | 0.0%  | 0.4%     |

**Millets: 87.3% in Shivpuri, 0.7% in Guna.** This is the sharpest single contrast in the entire baseline. Shivpuri farmers grow millets almost universally; Guna farmers have effectively stopped. Millets are drought-tolerant, nutrient-dense and locally adapted – precisely the crop the project’s dietary diversification aims to promote. In Shivpuri the practice already exists and needs strengthening; in Guna it would have to be reintroduced. The same is true of intercropping (85.3% against 25.3%).

Organic inputs are almost entirely absent. Organic pesticide and tonic are each used by a single household in the entire farming sample. Organic manure reaches 12.9%. For a project promoting organic and regenerative practice, this is close to a standing start – which is useful to know, since it means adoption figures at endline will be measuring genuine change rather than pre-existing practice.

The focus groups discussions add context on why adoption of improved practice is limited. Cultivation is almost entirely rainfall-dependent, and participants described taking loans to buy seed and facing sustained stress when the crop fails. Fertiliser use is dominated by urea and DAP; where households keep livestock, farmyard manure is

applied first and chemical fertiliser afterwards, which is consistent with the low organic-input figures above. Participants in Shivpuri proposed collective vegetable cultivation on plots with assured water, and crop insurance as protection against weather loss – both community-generated proposals rather than externally introduced ideas.

### 7.3 Kitchen Gardens

Kitchen gardens are the project's most direct route to dietary diversity: a household growing three or four vegetables for its own consumption addresses precisely the gap identified in Chapter 5.

**Table 4. Kitchen Garden Ownership and Water Source**

| Measure                        | Overall | Intervention | Control | Guna  | Shivpuri |
|--------------------------------|---------|--------------|---------|-------|----------|
| Household has a kitchen garden | 37.7%   | 50.2%        | 25.2%   | 60.0% | 15.6%    |

*Note: Differences significant by arm and district (both  $p < 0.001$ ). Among the 231 households with a garden, water comes from borewell (66.2%), rainfall only (17.7%), household wastewater (9.1%), open well (3.9%) and hand pump (3.0%).*

The arm difference – 50.2% against 25.2% – has a documented cause. As set out in Chapter 1 (§1.5), kitchen gardens and poultry were introduced during a preparatory phase in 2024–25 in villages that subsequently became intervention villages, with seed kits and chicks distributed. This is not a sampling artefact and not evidence of project impact; it is a real feature of the project's history, and it means garden-related indicators do not measure a clean pre-intervention state.

The district difference is larger still and has a different cause: 60.0% in Guna against 15.6% in Shivpuri, closely tracking water access (§7.1). Nearly two-thirds of existing gardens depend on borewell water. In Shivpuri, where improved water access reaches only 60.6% of households and distances are longer, the binding constraint on kitchen gardening is water, not willingness.

A further 17.7% of gardens depend on rainfall alone, making them seasonal and vulnerable. Any expansion of kitchen gardening in Shivpuri will need to address water access first.

The focus group discussions confirm this reading and add a second barrier of equal weight. Asked directly why kitchen gardens are not more widely adopted, participants in Guna gave two reasons: water, and the absence of anyone to look after the garden when the household migrates or goes out for daily wage work. Neither reason concerns willingness or awareness. Where seed was supplied and water was available, uptake was reported as successful, with vegetables available daily through to Holi.

Poultry showed a comparable pattern. Participants were positive about the idea – several volunteered it themselves as a route to better nutrition and income – but identified predation by wild cats and the absence of enclosures as practical obstacles. In both cases the constraint is operational and fixable, which is more encouraging than a demand problem would be.

*“पानी की समस्या के कारण एवं पोषण वाटिका की देख-रेख नहीं हो पाती है, पलायन या मजदूरी पर चले जाने के कारण, इसलिए पोषण वाटिका कम लगते हैं।” – Youth group, Bisoniya, Guna*

*“बिल्ली की परेशानी है, जंगली बिल्ली बहुत है, इस कारण मुर्गीपालन नहीं करते हैं।” – Women's group, Wagheri, Guna*

## 7.4 Income and Migration

**Table 5. Primary Source of Household Income**

| Source                                     | Overall | Intervention | Control | Guna  | Shivpuri |
|--------------------------------------------|---------|--------------|---------|-------|----------|
| Own or leased farming                      | 62.4%   | 64.8%        | 60.0%   | 86.2% | 38.8%    |
| Agricultural wage labour                   | 27.1%   | 23.1%        | 31.1%   | 7.9%  | 46.3%    |
| Non-agricultural wage / MNREGA             | 6.7%    | 8.1%         | 5.2%    | 3.9%  | 9.4%     |
| Households with two or more income sources | 51.0%   | 45.6%        | 56.4%   | 59.0% | 43.0%    |

The district contrast is fundamental. In Guna, 86.2% of households farm their own or leased land. In Shivpuri, only 38.8% do – nearly half instead work as agricultural labourers on someone else’s land.

This is a difference in land access, and it shapes almost everything else. A household farming its own land eats some of what it grows and can be reached through agricultural extension. A household selling its labour buys most of its food, is more exposed to seasonal wage fluctuation, and responds to a different set of interventions. It also helps explain the underweight difference noted in Chapter 6 (§6.2).

**Table 6. Migration**

| Measure                                      | Overall | Intervention | Control | Guna  | Shivpuri |
|----------------------------------------------|---------|--------------|---------|-------|----------|
| Household has a member who migrates for work | 61.4%   | 57.0%        | 65.9%   | 45.2% | 77.5%    |

*Note: Significant by district ( $p < 0.001$ ) and by arm ( $p = 0.029$ ). Remaining rows below are calculated among the 376 migrant households only.*

| Among migrant households                 | Overall | Guna  | Shivpuri |
|------------------------------------------|---------|-------|----------|
| Destination: elsewhere in Madhya Pradesh | 76.1%   | 65.9% | 81.9%    |
| Destination: within the district         | 33.5%   | 50.7% | 23.5%    |
| Destination: another state               | 24.2%   | 55.1% | 6.3%     |
| Duration: seasonal                       | 87.0%   | 84.1% | 88.7%    |
| Duration: semi-permanent                 | 27.4%   | 49.3% | 14.7%    |
| Duration: cyclical                       | 16.0%   | 39.9% | 2.1%     |
| Receives remittances regularly           | 73.1%   | 88.4% | 64.3%    |

Three in five households send someone away for work – 77.5% in Shivpuri. Migration is overwhelmingly seasonal (87.0%) and mostly within Madhya Pradesh.

But the two districts migrate differently. Guna’s migrants travel further – 55.1% cross state lines against 6.3% from Shivpuri – and stay longer, with half migrating semi-permanently. They also remit more reliably (88.4% against 64.3%). Shivpuri’s migration is closer, shorter and less financially productive.

**What migration does to nutrition.** As Chapter 1 explained, a household away from the village for months at a time loses reliable access to the PDS, the Anganwadi centre, school meals and health services – all of which are tied to place of residence. With 61.4% of households migrating, and 77.5% in Shivpuri, this is not a marginal issue. It is a structural barrier standing between these families and the government entitlements the project intends to help them claim.

The discussions revealed a debt cycle that the survey did not measure and that materially changes how migration income should be understood. Households commonly take goods on credit from village shops during the lean period, and a large share of migration earnings goes to clearing that credit on return. One youth group described earning ₹20,000 and retaining around ₹5,000 after repayment. In one Guna village, women described an advance of ₹50,000 tying household labour for a full year with little net gain.

Migration income is therefore a weaker route to better diets than the headline earnings suggest. Participants did confirm that diets improve when migrants return with cash – but the amount reaching food is smaller, and available for a shorter period, than the daily wage rates of ₹500–600 reported in Guna would imply.

## 7.5 Gender and Household Decision-Making

Who decides how money is spent determines what food is bought and whether a sick child is taken for treatment. Households were asked who makes three types of decision.

**Table 7. Who Makes Household Decisions**

| Decision / decision-maker       | Overall | Intervention | Control | Guna  | Shivpuri |
|---------------------------------|---------|--------------|---------|-------|----------|
| Income use – joint              | 61.4%   | 51.5%        | 71.5%   | 42.3% | 80.5%    |
| Income use – man only           | 37.4%   | 46.6%        | 28.2%   | 57.0% | 17.9%    |
| Income use – woman only         | 1.1%    | 2.0%         | 0.3%    | 0.7%  | 1.6%     |
| Major purchases – joint         | 64.4%   | 55.7%        | 73.1%   | 49.5% | 79.2%    |
| Major purchases – man only      | 33.7%   | 42.0%        | 25.2%   | 49.2% | 18.2%    |
| Children’s education – joint    | 64.7%   | 54.7%        | 74.8%   | 51.1% | 78.2%    |
| Children’s education – man only | 30.1%   | 35.5%        | 24.6%   | 47.2% | 13.0%    |

*Note: All three decisions differ significantly by district ( $p < 0.001$ ).*

Joint decision-making is reported by around three-fifths to two-thirds of households across all three domains. Women deciding alone is rare – between 1.1% and 3.9%.

The district difference is large and consistent. In Guna, men alone decide on income use in 57.0% of households; in Shivpuri, 17.9%. Shivpuri reports substantially more joint decision-making on every measure.

This should be read with care rather than taken at face value. Shivpuri also has far higher migration (77.5%), and when men are away for months, day-to-day decisions necessarily fall to women. Higher reported joint decision-making may reflect male absence as much as more equal gender norms. It should not, on its own, be read as Shivpuri being the more gender-equitable district – particularly given its higher illiteracy among women (55.0%, Chapter 4) and lower GBV service awareness.

**Table 8. Awareness of Gender-Based Violence Support Services**

| Measure                                   | Overall | Intervention | Control | Guna  | Shivpuri |
|-------------------------------------------|---------|--------------|---------|-------|----------|
| Aware of GBV support services in the area | 7.7%    | 9.1%         | 6.2%    | 10.8% | 4.6%     |

Fewer than one household in twelve knows of any gender-based violence support service, falling to 4.6% in Shivpuri. Sub-objective UZ3 commits the project to enabling households to identify and prevent rights violations; on this measure the starting point is close to zero.

The focus group discussions add two things to this picture. First, the survey question asks who decides; it does not ask who eats first. Participants in Shivpuri were explicit that men eat before others, and explained it in breadwinner terms – men earn for the family, so they should be fully fed. Women in one Guna village noted that meat, fish and eggs are largely eaten by men outside the home, where it goes unrecorded. Deciding what is cooked is therefore not the same as eating adequately, and the high joint decision-making figures should not be read as equal food distribution.

Second, on gender-based violence, participants described alcohol-related assault and women being turned out of the home, with support sought informally from Anganwadi and ASHA workers. No case had reached a police station. This is consistent with the 7.7% service-awareness figure and suggests the gap is not only awareness of services but confidence in using them.

*“शराब पीकर मारपीट करना और महिलाओं को घर छोड़ देने जैसी समस्याएँ सामने आई हैं... पुलिस थाने में मामला दर्ज कराने की स्थिति अभी तक नहीं आई है।” – Youth group, Shivpuri (FGD-4)*

## 7.6 Social Protection

Government schemes are the main existing safety net, and improving their reach is central to sub-objectives UZ1 and UZ4.

**Table 9. Social Protection Scheme Coverage**

| Scheme                          | Overall | Intervention | Control | Guna  | Shivpuri |
|---------------------------------|---------|--------------|---------|-------|----------|
| Any scheme                      | 82.8%   | 81.4%        | 84.3%   | 95.7% | 70.0%    |
| CM Ladli Behna Yojana           | 50.3%   | 49.5%        | 51.1%   | 53.8% | 46.9%    |
| Kisan Samman Nidhi              | 32.7%   | 33.9%        | 31.5%   | 47.9% | 17.6%    |
| PM Matru Vandana Yojana (PMMVY) | 13.2%   | 14.7%        | 11.8%   | 17.0% | 9.4%     |
| Annapurna Yojana                | 9.2%    | 6.5%         | 11.8%   | 17.7% | 0.7%     |
| CM Prasuti Sahayata Yojana      | 8.5%    | 7.5%         | 9.5%    | 10.5% | 6.5%     |
| Family assistance scheme        | 7.4%    | 2.3%         | 12.5%   | 1.3%  | 13.4%    |
| Old age pension                 | 6.2%    | 4.9%         | 7.5%    | 7.9%  | 4.6%     |
| Widow pension                   | 2.6%    | 3.3%         | 2.0%    | 3.6%  | 1.6%     |

**The maternal nutrition schemes reach fewest households.** Overall coverage looks reasonable at 82.8%. But the two schemes designed specifically to support pregnant and nursing women – PMMVY (13.2%) and CM Prasuti Sahayata Yojana (8.5%) – reach the fewest households of any major scheme. It is noteworthy that this schemes is conditional and all women may not cover under these two schemes. These are precisely the entitlements most relevant to the maternal undernutrition documented in Chapter 6 (41.3% of women chronically energy deficient). Improving their uptake is among the most concrete, achievable actions available to the project.

Coverage is also markedly lower in Shivpuri (70.0%) than Guna (95.7%) – the district with higher migration, lower literacy and worse water access. The households furthest from services are receiving least from them.

The discussions identified a specific and addressable barrier behind these figures. Participants in Shivpuri reported that missing or incorrect identity documents prevent households from claiming entitlements they are eligible for, and in one Guna village the question participants put to the survey team was how to obtain a family ID and ration card. Scheme coverage is therefore not only a matter of awareness or availability; for some households it is a documentation problem, which is both concrete and resolvable through facilitation support.

“परिवार आईडी और राशन कार्ड में सभी का नाम नहीं जुड़ा है इससे योजना का लाभ नहीं मिल रहा इसके लिए हम क्या करें?” – Women’s group, Badhanpur, Guna – question put to the survey team

## 7.7 Summary

- 80.1% of households use an improved drinking water source, but only 60.6% in Shivpuri, where 38.8% rely on unprotected wells.
- 84.6% of households farm. Millet cultivation is near-universal in Shivpuri (87.3%) and effectively absent in Guna (0.7%); intercropping shows the same pattern.
- Organic inputs are almost entirely unused – organic pesticide and tonic each by one household in 518.
- 37.7% of households have a kitchen garden, with a documented arm difference (50.2% against 25.2%) arising from 2024–25 preparatory activity, and a district difference (60.0% against 15.6%) tracking water access.
- 62.4% of households live primarily from their own farming, but only 38.8% in Shivpuri, where 46.3% depend on agricultural wage labour.
- 61.4% of households have a migrant member, rising to 77.5% in Shivpuri; migration is mostly seasonal and severs access to residence-linked government services.
- Joint decision-making is reported by around two-thirds of households, but is markedly higher in Shivpuri – plausibly reflecting male absence through migration as much as gender norms.
- Only 7.7% of households know of any GBV support service.
- 82.8% receive at least one government scheme, but the two maternal nutrition schemes reach only 13.2% and 8.5% which is condition base.

---

*Sources for this chapter: Samposhan Baseline Master file, Main\_Sheet\_Cleaned (612 households; 518 farming households; 376 migrant households; 231 households with a kitchen garden). Improved water source classified per WHO/UNICEF JMP definitions. Statistical tests computed in Python (scipy.stats). Full disaggregated tables are available on request from the VSS M&E team.*

## Chapter 8 – Cross-Cutting Analysis and Synthesis

The preceding four chapters presented findings module by module. This chapter draws them together. It asks four questions: whether the two study arms are comparable enough for the endline to work; what the two districts tell us when read side by side; what the evidence says is actually causing undernutrition here; and how these villages compare with the wider picture.

### 8.1 Are the Two Arms Comparable?

Because control villages were selected purposively rather than by formal matching (Chapter 3, §3.4), comparability has to be demonstrated rather than assumed. The table below consolidates every significance test reported across Chapters 4 to 7.

**Table 1. Baseline Comparability – Intervention vs. Control, All Major Indicators**

| Indicator                  | Intervention | Control  | p-value | Difference?     |
|----------------------------|--------------|----------|---------|-----------------|
| Stunting                   | 52.0%        | 50.5%    | 0.794   | No              |
| Underweight                | 48.3%        | 49.8%    | 0.770   | No              |
| Wasting                    | 27.6%        | 26.7%    | 0.890   | No              |
| Women's BMI (mean)         | 19.3         | 19.4     | 0.552   | No              |
| MDD-W achieved             | 3.1%         | 4.3%     | 0.601   | No              |
| Social category            | 74.9% ST     | 72.5% ST | 0.240   | No              |
| Education (grouped)        | –            | –        | 0.253   | No              |
| Household size             | 6.0          | 6.2      | 0.154   | No              |
| Social protection coverage | 81.4%        | 84.3%    | 0.628   | No              |
| HDDS (mean)                | 4.64         | 4.30     | 0.001   | Yes             |
| HFIAS score (mean)         | 1.41         | 2.41     | <0.001  | Yes             |
| Chronic illness            | 2.6%         | 7.5%     | 0.004   | Yes             |
| Respondent age (mean)      | 28.4         | 26.6     | 0.005   | Yes             |
| Kitchen garden             | 50.2%        | 25.2%    | <0.001  | Yes – see below |

**The pattern in this table is favourable.** Every one of the project's primary impact indicators – stunting, wasting, underweight – shows no significant difference between the two arms. So do women's nutritional status, women's dietary diversity, and all the core household characteristics that would normally be used for matching. The two arms start from an equivalent position on the measures that matter most.

Five indicators do differ, and each needs a different response.

- Kitchen gardens (50.2% against 25.2%) have a documented cause: kitchen gardening and poultry were introduced in a 2024–25 preparatory phase in villages that later became intervention villages (Chapter 1, §1.5). This is a known feature of the project's history, not a selection artefact. Garden-related indicators therefore do not measure a clean pre-intervention state, and endline change on them must be interpreted accordingly.
- HFIAS (1.41 against 2.41) and chronic illness (2.6% against 7.5%) are genuine baseline imbalances of the kind that arise in any non-randomised comparison. Neither is a primary outcome, but both should be included as covariates in the endline impact model so the estimate of project effect is adjusted for the starting difference.

- HDDS (4.64 against 4.30) is a statistically significant difference of 0.34 food groups. It is real but small, and it sits alongside no corresponding difference in MDD-W, child dietary diversity or any anthropometric outcome. It should be treated as a modest imbalance to note rather than a substantive gap.
- Respondent age (28.4 against 26.6 years) is detectable but too small to carry practical meaning.

Taken together, the comparison is sound for its purpose. The endline can proceed as designed, provided the analysis adjusts for the four documented differences and the limitation on control-village selection is restated whenever impact figures are presented.

## 8.2 The District Story: Different Structures, Same Outcomes

The most analytically interesting finding in this baseline is not in any single chapter. It emerges only when the two districts are read side by side. Guna and Shivpuri are structurally very different places.

**Table 2. Structural Differences Between the Two Districts**

| Characteristic                               | Guna  | Shivpuri | Difference              |
|----------------------------------------------|-------|----------|-------------------------|
| Farms own or leased land                     | 86.2% | 38.8%    | Guna far higher         |
| Primary income from agricultural wage labour | 7.9%  | 46.3%    | Shivpuri far higher     |
| Household has a migrant member               | 45.2% | 77.5%    | Shivpuri far higher     |
| Improved drinking water source               | 99.7% | 60.6%    | Guna near-universal     |
| Water source within 500 metres               | 96.4% | 60.6%    | Guna far higher         |
| Kitchen garden                               | 60.0% | 15.6%    | Guna far higher         |
| Millet cultivation (farming households)      | 0.7%  | 87.3%    | Shivpuri near-universal |
| Intercropping (farming households)           | 25.3% | 85.3%    | Shivpuri far higher     |
| Any government scheme                        | 95.7% | 70.0%    | Guna far higher         |
| Respondent has no formal education           | 25.6% | 55.0%    | Shivpuri far higher     |
| Mean household size                          | 7.1   | 5.1      | Guna larger             |
| Joint decision-making on income              | 42.3% | 80.5%    | Shivpuri far higher     |

On almost every structural measure, the two blocks look like different places. Guna has land, water, gardens, government schemes and larger households; Shivpuri has wage labour, migration, millets, intercropping and far more limited water and service access.

Yet on the outcomes the project exists to change, they are almost identical.

**Table 3. Nutrition Outcomes by District**

| Indicator          | Guna  | Shivpuri | p-value | Difference? |
|--------------------|-------|----------|---------|-------------|
| Stunting           | 51.8% | 50.7%    | 0.854   | No          |
| Wasting            | 29.8% | 24.5%    | 0.186   | No          |
| Women's BMI (mean) | 19.5  | 19.2     | 0.175   | No          |
| Underweight        | 54.7% | 43.4%    | 0.008   | Yes         |
| HDDS (mean)        | 4.15  | 4.79     | <0.001  | Yes         |
| MDD-W achieved     | 1.0%  | 6.5%     | 0.001   | Yes         |
| HFIAS score (mean) | 1.62  | 2.19     | 0.015   | Yes         |

**Two different routes to the same result.** Stunting is 51.8% in Guna and 50.7% in Shivpuri – statistically indistinguishable – despite the two districts differing on land ownership, water access, migration, cropping and scheme coverage. Undernutrition here is not the product of one specific deprivation that one district happens to have and the other does not. It is the common endpoint of two different sets of disadvantage.

The mechanism appears to differ. In Guna, households have land and water but a narrower diet: HDDS averages 4.15, only 1.0% of women achieve minimum dietary diversity, fruit reaches 4.6% of households, and millets have effectively disappeared from the cropping system. Guna's children are lighter for their age (54.7% underweight) without being shorter, which points to current dietary inadequacy rather than long-term growth faltering.

In Shivpuri, households have a more varied diet on paper – HDDS 4.79 on the 12-group scale (4.26 on the 11-group NIN-aligned scale, 3.45 once condiments are excluded, against Guna's 4.15 / 3.87 / 3.01) – MDD-W 6.5%, near-universal millet cultivation, but far weaker foundations: 38.8% unprotected wells, 77.5% migration, 70.0% scheme coverage, 55.0% adult illiteracy. Shivpuri's dietary-diversity advantage over Guna narrows on the stricter scales but does not close. Better food, worse conditions.

This has a direct implication for programme design, and it is the clearest one in this report. A single undifferentiated package will underperform in both districts. Guna needs dietary diversification – reintroducing millets, promoting fruit and vegetable production, using the land and water it already has. Shivpuri needs the enabling conditions – water safety, service access, and support for households whose members are away for much of the year – before dietary advice can take hold.

### 8.3 What Is Actually Driving Undernutrition Here

Read together, the findings describe a fairly clear causal chain.

#### **The diet is narrow, and narrow in a specific way**

Households eat enough to fill stomachs. Cereals reach 98.9% of them, and half register as food secure on HFIAS. What is missing is not bulk but the nutrient-dense foods: meat 1.3%, eggs 1.6%, fish 2.3%, fruit 11.3%. These are the food groups supplying iron, vitamin A, vitamin B12, zinc and quality protein – precisely the nutrients whose absence produces stunting.

#### **Distribution within the household compounds it**

The household score of 4.47 overstates what most members eat, because it counts Anganwadi meals, school meals and food eaten by wage labourers away from home (Chapter 5, §5.1). The individual measures are far lower: women 2.65 food groups, children aged 6–23 months 2.21 of eight. Women, young children and older members are consistently at the losing end.

#### **The damage is done in a narrow age window**

Stunting runs at 23.5% among infants under six months – children largely protected by breastfeeding, which is near-universal here at 87.0%. By 6–11 months it is 47.1%; by 12–23 months, 56.2%. The deterioration coincides exactly with the transition to complementary feeding, and with the period in which only 1.3% of children achieve adequate dietary diversity.

#### **The constraint is access, not knowledge**

Focus group participants named the foods they lack without prompting – meat, chicken, eggs, fruit – and confirmed that diets change towards those foods when a migrant member returns with cash (Chapter 5, §5.4). Meal frequency is already adequate for 40.2% of young children; dietary diversity for 1.3%. Caregivers are feeding their children regularly; what they lack is something better to feed them. The qualification recorded in Chapter 5 applies here too:

those who spoke most readily were the more exposed members of their groups, and many women could not describe what a nutritious diet contains. Awareness is established among some and absent among others, so this identifies the larger of two real constraints rather than dismissing the second.

The single most actionable finding in this baseline. Across every strand of evidence – the MAD components, the FGD testimony, the packaged food findings and the district comparison – the same conclusion appears. The binding constraint on young child nutrition in these villages is what is available to put in the bowl, not how often the bowl is filled. Interventions that increase local availability of nutrient-dense food address the actual constraint. Awareness work remains necessary, but should be pitched at those without prior exposure rather than assumed to be already achieved.

### Two structural barriers sit behind all of this

Migration severs the link to residence-based services. With 61.4% of households sending a member away, and 77.5% in Shivpuri, the PDS, the Anganwadi centre, school meals and health services – all anchored to place of residence – become intermittently inaccessible for a substantial share of the target population.

And the entitlement system that works best delivers the wrong thing. The PDS reaches households reliably and cheaply, and is the main reason HFIAS scores are as low as they are. But it delivers grain. The two schemes designed to support maternal nutrition – PMMVY at 13.2% and CM Prasuti Sahayata at 8.5% – reach fewest households of any major scheme (the reason may be these are condition based), while Ladli Behna, a general cash transfer, reaches 50.3%. **A third observation follows from the data rather than from the barriers. Two children in three hundred did achieve a Minimum Acceptable Diet, and a minority of households reach the dietary diversity target under the same land, water, market and income conditions as their neighbours. These exceptions have not been examined. A positive deviance enquiry establishing what those households do differently would produce locally generated practice, which in this setting is likely to carry more weight than externally supplied advice.**

A further mechanism emerged from the discussions that the survey instrument could not capture. Migration constrains nutrition through time as much as through income. Asked why kitchen gardens are not more common, participants pointed not to lack of interest but to absence: nobody remains to water, weed or protect a garden when the household is away at work. The same explanation was given for missed growth monitoring and low Anganwadi attendance. Household income typically rises during migration; what falls is the time available for the daily caregiving work that nutrition depends on. This reframes migration from a purely economic constraint to a caregiving one, and it matters for design – an intervention requiring sustained daily attention will fail in precisely the households that most need it.

*“अधिक पैसा आएगा तो फल, चिकन, पनीर, अंडा की भी खाने की इच्छा रहेगी; पैसा ना होने के कारण नहीं खा पाते हैं।”* – Youth group, Bisoniya, Guna

## 8.4 What the Qualitative Findings Add

The focus group discussions and key informant interviews did not contradict the survey. They explained it, and in three places they changed how a finding should be read.

**Table 4. Survey Findings and Qualitative Explanation**

| Survey finding                                                               | What the discussions added                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Half of households register as food secure on HFIAS, despite very poor diets | Food availability genuinely is not the daily worry: the PDS, own production, payment in kind and Ladli Behna together keep grain in the house. When short, households borrow and repay after harvest or migration. The system works – it just delivers cereal. |

| Survey finding                                                                  | What the discussions added                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Spices, condiments and beverages reach 83.2% of households                      | Much of this is hari mirch ki chatni, eaten with roti precisely when there are no vegetables or pulses in the house. A food group that appears to signal variety is in fact substituting for its absence.                                                                     |
| HDDS averages 4.47 while women manage 2.65 and children 2.21                    | The household score counts Anganwadi and school meals and food eaten by male wage labourers in nearby towns. It measures household access, not individual intake, and the gap between them is the finding.                                                                    |
| 90.5% of households buy packaged snacks, two-thirds daily, median ₹150 per week | These are bought for children – to quieten a crying child, or as an affectionate gift from a father or grandparent. Biscuits are the exception and the more serious case: they substitute for meals rather than supplementing them.                                           |
| Only 3.7% of women and 0.7% of children achieve minimum dietary diversity       | Participants with exposure and education named exactly the missing foods when asked what they would eat with more money, and confirmed diets change when migration income arrives. However for the larger group the gap is affordability, availability and awareness as well. |

The convergence between the two sources is itself a quality check. Where a survey figure looked implausible in isolation – food security alongside severe undernutrition, snack spending alongside claimed inability to afford eggs – the qualitative work supplied a coherent explanation rather than casting doubt on the measurement.

Three further points emerged from the discussions that the survey did not measure directly, and each strengthens rather than qualifies the survey findings. First, take-home ration is widely refused on quality grounds – grit, smell and staleness – reported independently by mothers and by an Anganwadi worker. Second, complementary feeding is commonly started at three to five months rather than six, with biscuits, tea and toast as the foods introduced. Third, migration income is substantially absorbed by debt repayment before it reaches food: participants described earning ₹20,000 and retaining ₹5,000 after clearing store credit.

Taken together, the qualitative evidence does not overturn a single quantitative finding in this report. It explains several and sharpens the programme implications of most.

### Where the two sources do not agree

Three differences between the survey and the discussions should be recorded rather than smoothed over. In each case the likely explanation is a difference in what was being asked, not an error in either source.

- Migration in Guna. Participants in one Guna village estimated that 60–80% of families migrate or go out for wage work. The survey records 45.2% of Guna households with a migrant member. The FGD figure is a participant estimate for a single village and appears to combine seasonal migration with local daily-wage labour, which the survey counts separately. The survey figure should be used; the FGD estimate indicates how large the combined burden of absence feels locally.
- Household decision-making in Guna. Guna focus groups consistently reported that husband and wife decide expenditure together. The survey records 57.0% of Guna households where the man alone decides on income use, against 42.3% joint. Group settings tend to elicit the socially preferred answer, and the FGD question concerned planning expenditure while the survey asked who takes the decision. The survey figure is the more reliable of the two for reporting; the divergence is itself informative, since it suggests joint decision-making is the stated norm even where it is not the practice.
- Alcohol and tobacco use. Youth participants in Shivpuri estimated that around 50% of people in their village use alcohol, tobacco or pouches. The survey records 92.2% of Shivpuri households reporting any addiction. These are not comparable

measures: the survey counts a household where any member uses, while the participants were estimating the share of individuals. Once that distinction is made, the two are consistent.

One point of close agreement is worth noting alongside these. Participants in a Shivpuri village reported that 20 families had established kitchen gardens; against a village of roughly 150 households, that is close to the 15.6% the survey records for Shivpuri as a whole.

Finally, one gap rather than a disagreement. The survey did not measure exclusive breastfeeding, and reports only continued breastfeeding at 87.0% (\$6.6). The discussions indicate that complementary feeding often begins at three to five months. Continued breastfeeding should therefore not be read as evidence that early feeding practice is sound; on the qualitative evidence, it is not. Measuring exclusive breastfeeding at endline would close this gap.

## 8.5 How These Villages Compare

The project villages were selected because VSS’s earlier work suggested conditions there were worse than district averages. The baseline confirms this, and quantifies the gap.

**Table 5. Baseline Findings Against NFHS-5 District Figures**

| Indicator   | These villages | Guna & Shivpuri (NFHS-5) | Ratio |
|-------------|----------------|--------------------------|-------|
| Stunting    | 51.2%          | 35%                      | 1.5×  |
| Underweight | 49.1%          | 30.5%                    | 1.6×  |
| Wasting     | 27.1%          | 14%                      | 1.9×  |

*Note: NFHS-5 district figures as cited in Chapter 1 (§1.3). Baseline figures are index-child, corrected dataset.*

Every indicator is between one and a half and two times the district average. Wasting – the acute measure, and the one most responsive to intervention – shows the widest gap at nearly double.

Two comparisons are worth stating plainly. At 27.1%, wasting in these villages sits well above the WHO threshold of 15% at which population wasting is classified ‘very high’ and warranting urgent public health attention. And at 51.2%, stunting is above the level at which WHO classifies the problem as of ‘very high’ public health significance.

These are not villages with a somewhat worse version of a district-wide problem. They are among the most nutritionally deprived communities in a district that is itself performing below the state average, in a state performing below the national average.

**The project’s target in context.** Sub-objective PZ1.3 commits to reducing stunting and wasting by 40% against the baseline year. Applied to the corrected figures, that means moving stunting from 51.2% to roughly 31% and wasting from 27.1% to roughly 16% by 2029. This is an ambitious target from a starting point substantially worse than the one assumed when the target was set – the project design anticipated a baseline stunting rate of around 35%. The target should be reviewed against the measured baseline rather than the assumed one.

## 8.6 What Follows

Four conclusions carry directly into the recommendations in Chapter 11.

- Prioritise dietary diversity over feeding frequency. The MAD components, the FGD testimony and the packaged food findings all point the same way. This is the clearest programmatic signal in the baseline.
- Differentiate the programme by district. Guna needs dietary diversification on land and water it already has; Shivpuri needs water safety and service access before dietary advice can take hold. A single package will underperform in both.

- Work on access, as well as awareness, though households already know to some extent what they are missing. Kitchen gardens, poultry and local availability of nutrient-dense food address the constraint people themselves identify; nutrition messaging is equally important to ensure balance diet.
- Target the 6–23 month window. Stunting rises from 23.5% to 56.2% across it. Breastfeeding is already strong; complementary feeding is where the damage occurs and where intervention has most to gain.

Two further points concern the study rather than the programme. The endline analysis must adjust for the four documented baseline differences identified in Section 8.1. And the 40% reduction target should be reviewed against the measured baseline rather than the figure assumed at design stage.

---

*Sources for this chapter: synthesis of findings reported in Chapters 4 to 7, drawn from the Samposhan Baseline Master file. All significance tests computed in Python (scipy.stats). Qualitative findings from 10 focus group discussions and 4 key informant interviews conducted alongside the survey. NFHS-5 comparison figures as cited in Chapter 1.*

## Chapter 9 – Cases Identified During the Survey

A nutrition survey that measures children finds children who need help. This chapter reports how many, where they are, what was done at the time, and what should happen next. It is placed before the conclusions because it concerns named individuals rather than statistics, and because the action it points to should not wait for the report to be finalised.

### 9.1 What the Survey Identified

Measuring 601 index children and 594 women produced a substantial caseload of severe undernutrition – cases meeting the clinical thresholds at which referral or supplementary support is normally indicated.

**Table 1. Severe Cases Identified Among Index Children (n=601)**

| Condition                        | Threshold        | Children identified | Share of those measured |
|----------------------------------|------------------|---------------------|-------------------------|
| Severe wasting (SAM)             | WHZ < -3         | 57                  | 10.3%                   |
| Severe stunting                  | HAZ < -3         | 169                 | 30.1%                   |
| Severe underweight               | WAZ < -3         | 146                 | 24.5%                   |
| Severe on at least one indicator | any of the above | 252                 | 41.9%                   |

*Note: Percentages are calculated on the number of children with a plausible measurement for that indicator, not on the full 601 (Chapter 3, §3.9). Categories overlap: a child may be severe on more than one.*

All figures in this chapter are reported on the index-child basis used throughout the report – one child per household, as specified in the sampling design (Chapter 3, §3.3). The details on operational cases were shared with the respective and the compiled list are in place, covering every child measured rather than the index child alone, so that a severely wasted sibling would not be omitted from follow-up. The figures below are, therefore, the correct basis for reporting and analysis; the shared lists are the correct basis for field action.

**Table 2. Severe Undernutrition Among Women (n=594)**

| Condition                          | Threshold     | Women identified | Share |
|------------------------------------|---------------|------------------|-------|
| Severe chronic energy deficiency   | BMI < 16.0    | 51               | 8.6%  |
| Moderate chronic energy deficiency | BMI 16.0–16.9 | 70               | 11.8% |

**Two hundred and fifty-two children and fifty-one women.** Of the children measured, 41.9% were severely affected on at least one anthropometric indicator, and 57 met the case definition for severe acute malnutrition – the condition carrying the highest short-term mortality risk and the one for which India operates a dedicated treatment system through Nutrition Rehabilitation Centres. These are not statistics awaiting analysis. They are identifiable children in identifiable villages, measured between 20 July and 14 August 2026.

### 9.2 Where These Cases Are

Severe cases are not concentrated in a handful of villages. They are distributed across the whole project area.

**Table 3. Distribution of Severe Cases**

| Measure                                       | Guna | Shivpuri | Total    |
|-----------------------------------------------|------|----------|----------|
| Children severe on at least one indicator     | 132  | 120      | 252      |
| Children with severe acute malnutrition (SAM) | 35   | 22       | 57       |
| Women with severe chronic energy deficiency   | 21   | 30       | 51       |
| Villages with at least one severe child case  | –    | –        | 38 of 38 |
| Villages with at least one SAM case           | –    | –        | 27 of 38 |

*Note: The highest number of severe child cases recorded in any single village was 11. SAM cases were found in 27 of the 38 surveyed villages.*

Every one of the 38 surveyed villages contains at least one severely affected child. SAM cases appear in 27 of them. The caseload is also evenly split between the two study arms (124 intervention, 128 control), which is consistent with the comparability finding in Chapter 8 and means this is not a problem concentrated in villages the project does not work in.

This distribution matters for the response. A caseload spread thinly across 38 villages cannot be addressed by a single camp or a one-off screening exercise. It requires working through the existing village-level system – the Anganwadi centre in each village – which is precisely the structure sub-objectives UZ1 and UZ4 aim to strengthen.

### 9.3 What Was Done at the Time of Measurement

The survey did not operate a formal referral system. Written referral slips were not issued, and no separate referral register was maintained – this was a deliberate design decision, not an oversight. The survey was a measurement exercise conducted by trained project staff rather than a clinical screening run by health personnel, and issuing formal medical referrals was outside its remit.

What was put in place instead had two stages, both confirmed by the enumerators. At the time of measurement, the family was advised to visit the health facility and the Anganwadi worker for that village was informed. Following the instructions given to teams, the list of severely malnourished children and of women with severe chronic energy deficiency was handed to the Anganwadi worker the same day, so that no case waited on data processing. Subsequently, once the dataset had been cleaned and the anthropometric calculations independently verified, a consolidated village-level list was provided to project field workers for continuing follow-up, supporting the biannual growth monitoring the project carries out and the regular monitoring of severe acute malnutrition required under the ICDS protocol.

**Table 4. Referrals Formally Recorded in the Survey Data**

| Group    | Formally recorded as referred | Cases identified as severe |
|----------|-------------------------------|----------------------------|
| Children | 6                             | 252                        |
| Women    | 4                             | 51                         |

*Note: Facilities recorded: primary health centre (4 children, 2 women), community health centre (2 children), district hospital (1 woman), other health centre (1 child, 1 woman).*

**What these numbers do and do not tell us.** The recorded referral figures – 6 children and 4 women – reflect only the small number of cases where an enumerator judged the situation acute enough to name a specific facility at the time of the visit. They are not a measure of the caseload handed over. The same-day lists given to Anganwadi workers and the consolidated lists later provided to field workers sit outside the survey instrument, so neither appears in the dataset. What the survey data cannot establish is what followed: whether the listed children and women were subsequently seen, treated or enrolled in supplementary feeding.

The limitation is therefore narrower than it first appears, and it should be stated precisely. Identification is documented in the dataset, and handover is documented through the lists given to Anganwadi workers and field workers. What is not documented is outcome. A donor or government reviewer asking what happened to the children identified with severe acute malnutrition can be told when and to whom the lists were provided, and that the cases sit within the project’s biannual growth monitoring cycle, but not – from this dataset – what treatment or enrolment followed for each child.

The focus group discussions add one relevant point. Anganwadi workers themselves reported having no specific knowledge of child rights, and in one village the growth-monitoring register was found to be incompletely maintained. Where women take children to the fields for work, weighing is missed and centre attendance falls. This

does not diminish the case for routing follow-up through the Anganwadi system – it remains the only village-level structure available – but it does mean the system needs strengthening at the same time as it is being relied upon.

*“आंगनवाड़ी कार्यकर्ताओं को बच्चों के अधिकारों के संबंध में कोई विशेष जानकारी नहीं है।” – Youth group, Shivpuri (FGD-4)*

## 9.4 What Should Happen Now

The identified cases remain identifiable. Every measurement is linked to a household, a village and a district, and the project works in these villages continuously. Acting on the caseload is therefore practical, not hypothetical.

### Immediate – the 57 SAM cases

Severe acute malnutrition carries the highest short-term risk of any condition measured in this survey, and India operates a defined treatment pathway for it through Nutrition Rehabilitation Centres, supported by community-based management at the Anganwadi level. These children were listed to the Anganwadi worker on the day of measurement and are included in the consolidated list held by field workers. The outstanding step is verification: each child’s current status should be confirmed by a health worker and the child linked to the appropriate service. Several months have passed since measurement; some will have recovered, some may have deteriorated, and establishing which is now the first task.

### Near term – the wider severe caseload

The 169 severely stunted and 146 severely underweight children, and the 51 women with severe chronic energy deficiency, do not require emergency treatment but do require attention. The route is already partly established: the cases sit within the project’s biannual growth monitoring cycle. What should be confirmed at the next monitoring round is that each child is enrolled in growth monitoring and receiving supplementary nutrition, and that eligible women are enrolled in PMMVY or CM Prasuti Sahayata Yojana – schemes which, as Chapter 7 showed, currently reach only 13.2% and 8.5% of households.

### Systemic – for the endline and for any future round

Three changes would put this on a firmer footing.

- Record the handover and the outcome. The handover process worked but left no trace in the survey dataset. Two fields in the instrument recording whether the family was advised and whether the Anganwadi worker was given the case, plus a simple project register of lists provided and responses received, would make the process auditable as well as effective.
- Use the biannual growth monitoring round as the follow-up mechanism. The project already monitors growth twice yearly. Recording the status of the baseline-identified cases at each round converts an existing activity into the closed loop this chapter calls for, at no additional cost.
- Agree the handover formally with government. Before the endline, agree with the Women and Child Development and Health departments how case lists will be shared, with whom and within what timeframe, so that what currently works through project instruction is also documented as an inter-agency process.

**A note on why this matters beyond compliance.** Identifying a severely malnourished child and not knowing what happened next is an unsatisfactory position for any project, irrespective of whether the survey’s remit included referral. It is also a missed opportunity: the survey has produced, at no additional cost, a village-by-village list of the children in greatest need across all 50 project villages. Used well, that list is an operational asset for the project’s first year of implementation, not merely a reporting obligation.

## 9.5 Status at the Time of Reporting

The table below records what has been done about the caseload described above. It should be updated by the project team before the report is released externally.

| Action                                                                      | Status            | Responsible        | Date         |
|-----------------------------------------------------------------------------|-------------------|--------------------|--------------|
| SAM case list handed to Anganwadi workers (same day as measurement)         | <b>Complete</b>   | Survey enumerators | Jul–Aug 2026 |
| Women with severe CED – list handed to Anganwadi workers (same day)         | <b>Complete</b>   | Survey enumerators | Jul–Aug 2026 |
| Consolidated verified list provided to project field workers                | <b>Complete</b>   | VSS M&E            | [date]       |
| SAM cases traced and current status confirmed by health worker              | [to be completed] |                    |              |
| Baseline cases reviewed at next biannual growth monitoring round            | [to be completed] |                    |              |
| Women with severe CED linked to social protection schemes (if they are not) | [to be completed] |                    |              |
| Handover and outcome recording added to endline instrument                  | [to be completed] |                    |              |

The first three rows are recorded as complete on the basis of confirmation from the survey enumerators and the project M&E team. The remaining rows should be completed before the report is released externally. Where an action is not yet complete, recording that is preferable to the chapter being silent on the question.

---

*Sources for this chapter: Samposhan Baseline Master file – Index\_Child sheet (601 index children with valid household linkage) and Main\_Sheet\_Cleaned (594 women with valid anthropometry). Case definitions follow WHO Child Growth Standards 2006 and WHO BMI classification. Referral mechanism as described in Chapter 3 (§3.11).*

## Chapter 10 – Conclusions

This chapter draws the conclusions that follow from the baseline. It sets out where the project starts, what the findings mean for the logic on which the project was designed, whether the targets remain realistic now that the starting point has been measured, and whether this baseline is fit to serve as the reference for the 2029 endline.

### 10.1 Where the Project Starts

The baseline establishes a measured value for every indicator in the project's results framework. These are the figures against which change will be assessed in 2029.

**Table 1. Baseline Values Against Project Targets**

| Ref   | Indicator                                           | Baseline value | Target by 2029                         |
|-------|-----------------------------------------------------|----------------|----------------------------------------|
| PZ1.1 | Household Dietary Diversity Score (mean, 12 groups) | 4.47           | At least 5                             |
| PZ1.1 | Households reaching HDDS $\geq 5$                   | 48.0%          | –                                      |
| PZ1.2 | Women achieving minimum dietary diversity (MDD-W)   | 3.7%           | Increase of at least 40% over baseline |
| PZ1.2 | Children 6–23 m achieving minimum dietary diversity | 1.3%           | Increase of at least 40% over baseline |
| PZ1.2 | Children 6–23 m achieving Minimum Acceptable Diet   | 0.7%           | –                                      |
| PZ1.3 | Child stunting                                      | 51.2%          | 40% reduction                          |
| PZ1.3 | Child wasting                                       | 27.1%          | 40% reduction                          |
| –     | Child underweight                                   | 49.1%          | –                                      |
| –     | Women with chronic energy deficiency (BMI <18.5)    | 41.3%          | –                                      |
| –     | Households food insecure (any degree, HFIAS)        | 49.8%          | –                                      |
| –     | Anaemia (women and children)                        | To follow      | –                                      |

*Note: All child anthropometry figures are index-child, corrected dataset. Anaemia will be issued as an addendum (Chapter 3, §3.10). The HDDS figure above is the 12-group FAO-standard scale, the indicator of record against PZ1.1; the 11-group NIN-aligned and 10-group condiments-excluded figures are presented as a sensitivity check in Chapter 5, §5.1.*

Stated plainly: roughly half of children under five in these villages are stunted and half are underweight, more than a quarter are wasted, two in five women are chronically energy deficient, and fewer than four women in a hundred eat a diet with adequate variety. These are severe figures – between one and a half and two times the district averages recorded in NFHS-5.

### 10.2 What the Findings Mean for the Project's Logic

The project was designed on a chain of reasoning: strengthen community structures and government service delivery, help households produce more diverse food, address gender norms that shape who eats what, and child nutrition will improve. The baseline allows several links in that chain to be tested against evidence for the first time.

#### Assumptions the baseline supports

- That dietary diversity is the binding constraint. The evidence is unusually consistent. Meal frequency is already adequate for 40.2% of young children while dietary diversity reaches only 1.3%; breastfeeding is near-universal at 87.0%; households

named the missing foods without prompting. The project’s emphasis on food production and diversity addresses the right problem.

- That household production is a sensible route. Kitchen gardens already exist in 60.0% of Guna households, and the water source most gardens rely on – borewells – is available there. In Guna at least, sub-objective UZ2 is working with the grain of existing practice rather than against it.
- That government service delivery matters. The two schemes most relevant to maternal nutrition reach 13.2% and 8.5% of households, against 50.3% for a general cash transfer. There is real, addressable ground here, which is what UZ1 and UZ4 target.

### Assumptions that need adjustment

- That awareness is a principal barrier. Sub-objective UZ3 is framed substantially around education and awareness. The evidence is mixed rather than one-sided. Participants with wider exposure – young men who have migrated, better-educated women – named the missing foods readily and changed their diets when income allowed, indicating that for them the constraint is access. Most women in the discussions, however, could not describe what a nutritious diet contains. UZ3’s nutrition-education component should therefore be reframed rather than reduced: pitched at those with no prior exposure, delivered through demonstration rather than explanation given the education levels recorded in Chapter 4, and paired with the access measures that address the constraint for those who already know.
- That a single package suits both districts. Guna and Shivpuri differ on land access, water, migration, cropping and service coverage, yet arrive at almost identical nutrition outcomes (Chapter 8, §8.2). Guna needs dietary diversification using land and water it already has; Shivpuri needs water safety and service access before dietary advice can take effect. The results framework does not currently distinguish between them.
- That households can be reached reliably through village-based services. With 61.4% of households sending a member away for work – 77.5% in Shivpuri – and migration mostly seasonal, a substantial share of the target population is intermittently absent from the village. Interventions anchored to the Anganwadi centre, the school or the PDS shop will miss these households for part of each year. This is not an argument against those channels, but it does mean coverage assumptions built on residence need revisiting.

**The most important single conclusion.** Across every strand of evidence – the MAD components, the focus group testimony, the packaged food findings and the district comparison – the same conclusion emerges. The constraint on child nutrition in these villages is what is locally available and affordable to put in the bowl, not how often children are fed and not whether caregivers understand why it matters. A programme weighted towards increasing local availability of nutrient-dense food will outperform one weighted towards messaging.

## 10.3 Are the Targets Still Realistic?

The targets were set before the baseline was measured. Now that it has been, two of the three require attention – not because they are wrong, but because the arithmetic has changed.

### PZ1.3 – stunting and wasting

The sample size calculation in the project design assumed a baseline stunting rate of approximately 35%, and a 40% reduction from that figure would have meant reaching 21%. The measured baseline is 51.2%.

**Table 2. PZ1.3 Target Against Measured Baseline**

| Indicator | Assumed at design      | Measured baseline | Target on measured baseline |
|-----------|------------------------|-------------------|-----------------------------|
| Stunting  | ≈35%                   | 51.2%             | 30.7%                       |
| Wasting   | ≈14% (district figure) | 27.1%             | 16.3%                       |

A 40% reduction from 51.2% means moving roughly 20 percentage points in three and a half years, rather than the 14 points the design implied. The target is not impossible, but it is materially harder than when it was set, and it should be discussed with the donor against the measured baseline rather than the assumed one.

There is one encouraging aspect. Wasting responds to intervention faster than stunting, and at 27.1% there is considerable room to move. A meaningful reduction in wasting is achievable within the project period in a way that a comparable reduction in stunting – largely irreversible after age two – is not.

### PZ1.2 – dietary diversity

**This target needs clarifying before endline.** PZ1.2 commits to the proportion achieving a minimum dietary diversity score of 5 increasing ‘by at least 40% over baseline’. Read as a relative increase on a baseline of 3.7% for women, the target is 5.2% – which would still leave 95 women in every 100 below the threshold, and would be met while the underlying problem remained almost untouched. Read as a 40 percentage point increase, the target is 43.7%, which on this baseline would be extraordinarily ambitious. The wording admits both readings. It should be settled explicitly with the donor now, not disputed at endline.

Our recommendation is that the target be restated in absolute terms with a defensible figure attached – for example, a specified percentage of women and children achieving minimum dietary diversity by 2029 – rather than as a percentage increase on a very small base. Relative targets on low baselines are easy to meet and tell you little.

### PZ1.1 – household dietary diversity

This target is well calibrated. The baseline mean is 4.47 against a target of 5, and 48.0% of households already reach it. Moving the average across the threshold is a realistic ambition. The caveat is that HDDS is a household access measure that overstates what individuals eat (Chapter 5, §5.1); reaching the target would be a real gain but should not be read as evidence that women and young children are eating adequately.

## 10.4 Is This Baseline Fit for Purpose?

A baseline earns its value at endline. The question is whether this one can carry that weight.

### What is sound

- The sample was achieved as designed – 612 households against a target of 612, evenly split between arms and districts, with 601 index children linked to a village and study arm.
- The two arms are comparable on every primary outcome indicator and on the household characteristics used for matching, despite control villages being selected purposively (Chapter 8, §8.1).
- Measurement follows international standards throughout – WHO Child Growth Standards for anthropometry, FAO and WHO/UNICEF definitions for the diet indicators – so the figures are comparable both with NFHS and with an identically conducted endline.
- Data quality was independently validated. The height-position correction was verified, implausible values were identified and excluded on WHO criteria, and the processing decisions are documented rather than assumed.
- The qualitative work corroborates rather than contradicts the survey, and explains the two findings that look counter-intuitive in isolation – food security alongside severe undernutrition, and snack spending alongside claimed inability to afford eggs.

### What is not, and what to do about it

- Anaemia is missing. This is the most significant gap. It is among the most severe nutrition problems in these districts and is closely linked to the dietary pattern documented here. The addendum should be completed as a priority, not treated as a formality.
- Control villages were selected purposively. The data shows the arms to be comparable, but the endline analysis must adjust for the four documented differences – HFIAS, chronic illness, HDDS and respondent age – and the limitation should be restated whenever impact figures are presented.
- Kitchen garden indicators are contaminated by the 2024–25 preparatory phase. Endline change on garden-related measures cannot be attributed cleanly to the project period and should be reported with that caveat.

- Some records were excluded as biologically implausible, and a small number could not be assigned a weight-for-height value. Counts are stated with each affected figure; the effect on prevalence estimates is small but should not be silently absorbed.

On balance, this baseline is fit for its purpose. It provides defensible reference values for every indicator except anaemia, an adequately comparable control arm, and a documented set of processing decisions that an endline team can reproduce exactly. Its limitations are known, bounded and recorded – which is the condition a baseline needs to meet.

## 10.5 The Position in Summary

Four conclusions stand out:

- The scale of undernutrition in these villages is severe and worse than assumed at design. Around half of children are stunted and underweight, over a quarter are wasted, and every indicator sits between one and a half and two times the district average. The project is starting from a lower base than its own design anticipated.
- The problem is legible and the causal chain is clear. Households eat enough cereal and are, by their own account, rarely short of food. What is missing is nutrient-dense food – meat, eggs, fish, fruit – and the deficit falls hardest on women, young children and older members. Damage concentrates in the 6–23 month window, when only 1.3% of children eat a diet of adequate variety.
- The intervention logic is broadly right but needs sharpening in three places: weight equally the programme towards access and awareness, differentiate it between the two districts, and account for the seasonal absence of a large share of households. Two further lines of enquiry would strengthen the response at little cost: examining the households that already achieve an adequate diet under the same conditions as their neighbours, and promoting the wild and locally growing foods participants described but do not systematically use.
- The baseline is sound and the study design remains viable, with anaemia to follow and four documented differences to control for at endline.

What follows from these conclusions – for programme design, for government engagement, and for the endline – is set out in Chapter 11.

---

*Sources for this chapter: findings reported in Chapters 4 to 9; project proposal P8505 objective and sub-objective statements and indicator targets; sample size assumptions from the baseline sampling protocol; NFHS-5 comparison figures as cited in Chapter 1.*

## Chapter 11 – Recommendations

The recommendations below follow from the findings in Chapters 5 to 10. They are grouped by who needs to act, because the four audiences for this report need different things from it. Each recommendation states the finding it rests on, a suggested owner and an indicative timeframe.

Owners and timeframes are proposals for discussion, not decisions. They are included because recommendations without them tend not to be acted on.

### 11.1 Programme Design and Implementation

Twelve recommendations for VSS and the field team. The first three are the most consequential.

**Table 1. Recommendations for Programme Design**

| # | Recommendation                                                                                                                                                                                                                                                                              | Basis                                                                                                                                             | Owner                 | When                                |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------|
| 1 | Weight the programme equally towards access and awareness. Emphasis on nutrition messaging and making nutrient-dense food locally available and affordable – kitchen gardens, backyard poultry, local production. Retain messaging throughout as a complement as well as the primary lever. | Households named the missing foods on prompting only; diets change when migration cash arrives; MMF 40.2% against MDD 1.3% (\$5.3, \$5.4, \$10.2) | VSS programme team    | Immediate – affects year-1 workplan |
| 2 | Prioritise dietary diversity over feeding frequency in all IYCF work. Counselling should focus on what goes into the bowl, not how often it is filled.                                                                                                                                      | 40.2% of children already meet minimum meal frequency; only 1.3% meet minimum dietary diversity (\$5.3)                                           | VSS / frontline staff | Immediate                           |
| 3 | Concentrate effort on the 6–23 month window. Prioritise households with a child entering complementary feeding for garden support, poultry and counselling.                                                                                                                                 | Stunting rises from 23.5% at 0–5 months to 56.2% at 12–23 months; breastfeeding already strong at 87.0% (\$6.1, \$6.6)                            | VSS / AWW partnership | Year 1 onwards                      |
| 4 | Differentiate the package by district. In Guna, prioritise dietary diversification – millet reintroduction, fruit and vegetable production – using land and water already available. In Shivpuri, address water access and service linkage before expecting dietary advice to take hold.    | Guna 86.2% own-farm, 99.7% improved water, 0.7% millets; Shivpuri 38.8% own-farm, 60.6% improved water, 87.3% millets (\$7.2, \$8.2)              | VSS district teams    | Year 1 planning                     |
| 5 | Target animal-source foods specifically. Eggs and poultry are the most tractable entry point – low cost, quick return, household-scale, and directly addressing the nutrients most absent from these diets.                                                                                 | Meat 1.3%, eggs 1.6%, fish 2.3% of households; these supply the iron, vitamin A, B12, zinc and protein whose absence produces stunting (\$5.1)    | VSS livelihoods team  | Year 1–2                            |
| 6 | Add a specific message on biscuits replacing meals. This is distinct from general advice about processed food and should be delivered through AWW counselling and home visits.                                                                                                              | FGD finding that biscuits substitute for meals, unlike other snacks which supplement them (\$5.5)                                                 | VSS / AWW             | Immediate – low cost                |

| #  | Recommendation                                                                                                                                                                                                                                                   | Basis                                                                                                                                                                         | Owner                          | When                |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|
| 7  | Work with existing snack expenditure rather than against it. Households already spend a median ₹150 per week on food for children. Position eggs, fruit, milk or roasted groundnut as the affordable, available alternative at the moment a child needs feeding. | 90.5% buy packaged snacks, two-thirds daily; purchase is a caregiving act for children (§5.5)                                                                                 | VSS behaviour-change component | Year 1–2            |
| 8  | Plan activities around the migration calendar. Schedule training, distribution and counselling for periods when migrant members are present, and design garden and poultry support so it does not fail when a household is away.                                 | 61.4% of households have a migrant member, 77.5% in Shivpuri; migration mostly seasonal (§7.4)                                                                                | VSS field teams                | Year 1 planning     |
| 9  | Design nutrition communication for the least exposed, not the most vocal. Use demonstration, visual material and repetition rather than explanation.                                                                                                             | Most women in the discussions could not describe what a nutritious diet contains; those who spoke were the more exposed. 40.4% of respondents have no formal schooling (§4.4) | VSS behaviour-change component | Year 1 planning     |
| 10 | Promote wild and locally growing foods – kakora and mid-monsoon green leafy varieties. Support collection, preservation and routine use.                                                                                                                         | Participants described these foods as available and eaten but not systematically used; they are free, seasonal and already accepted (§5.4)                                    | VSS livelihoods team           | Before next monsoon |
| 11 | Commission a positive deviance enquiry. Identify households achieving an adequate diet in the same conditions as their neighbours and establish what they do differently.                                                                                        | Two children achieved a Minimum Acceptable Diet and a minority of households reach the HDDS target under identical constraints (§5.3, §8.3)                                   | VSS M&E with programme team    | Year 1              |
| 12 | Treat hygiene promotion as part of the nutrition response rather than a separate WASH activity.                                                                                                                                                                  | Poor household cleanliness observed during field visits; repeated vomiting and diarrhoea reported, feeding into the wasting burden (§7.1)                                     | VSS with WASH partners         | Year 1              |

**If only one thing changes as a result of this baseline**, it should be recommendation 1. The evidence for it is unusually consistent across the quantitative findings, the focus group testimony and the district comparison. Households in these villages are not failing to feed their children because they do not know better. They are failing because the food that would make the difference is not available to them at a price and in a quantity they can manage.

## 11.2 Government Engagement and Convergence

Four recommendations concerning work with the Women and Child Development department, the Health department and other government counterparts. These align with sub-objectives UZ1 and UZ4.

**Table 2. Recommendations for Government Engagement**

| #  | Recommendation                                                                                                                                                           | Basis                                                                            | Owner        | When                                 |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------|--------------------------------------|
| 13 | Run an enrolment drive for PMMVY and CM Prasuti Sahayata Yojana. These are the two schemes designed for maternal nutrition and they reach fewest households of any major | PMMVY 13.2%, Prasuti Sahayata 8.5%, against Ladli Behna at 50.3%; 41.3% of women | VSS with WCD | Immediate – highest return per rupee |

| #  | Recommendation                                                                                                                                                                                                                                                                | Basis                                                                                        | Owner                                              | When                              |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------|
|    | scheme. Support eligible women through documentation and application.                                                                                                                                                                                                         | chronically energy deficient (§6.4, §7.6)                                                    |                                                    |                                   |
| 14 | Share the identified caseload with WCD and Health. Provide village-level lists of the 57 SAM cases, 252 severely affected children and 51 severely undernourished women, and agree who follows up.                                                                            | Caseload identified during the survey; follow-up not verifiable from survey data (Chapter 9) | VSS management with district WCD / CMHO            | Immediate – before report release |
| 15 | Refer the Shivpuri water finding to the relevant department. 38.8% of Shivpuri households drink from unprotected wells. This sits outside the project's scope but directly affects the outcomes the project is trying to change.                                              | Shivpuri improved water 60.6% against Guna 99.7%; unprotected wells 38.8% (§7.1)             | VSS management with PHED / district administration | Within 3 months                   |
| 16 | Raise dietary diversity in PDS and ICDS forums. The PDS works – it is the main reason food insecurity scores are as low as they are – but it delivers grain. Use village and block-level platforms to advocate for pulses, oil and fortified items where these are available. | PDS reliability confirmed in FGD; HFIAS low while diet diversity very poor (§5.4, §8.3)      | VSS with village committees, block officials       | Year 1 onwards                    |

### 11.3 Monitoring, Evaluation and the Endline

Seven recommendations to protect the integrity of the 2029 comparison. Several need action well before then.

**Table 3. Recommendations for M&E**

| #  | Recommendation                                                                                                                                                                               | Basis                                                                                                      | Owner                  | When                          |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------|
| 17 | Complete the anaemia addendum. Re-collect haemoglobin once the device issue is resolved and issue as a formal addendum to this report.                                                       | Testing suspended mid-survey; anaemia among the most severe problems in these districts (§3.10, §6.5)      | VSS M&E                | As soon as equipment resolved |
| 18 | Settle the wording of target PZ1.2 with the donor. Agree whether the 40% increase is relative or in percentage points, and restate the target in absolute terms.                             | Baseline MDD-W 3.7%; relative reading gives a target of 5.2%, percentage-point reading gives 43.7% (§10.3) | VSS with tdh and donor | Before next reporting cycle   |
| 19 | Review target PZ1.3 against the measured baseline. The design assumed stunting of ~35%; the measured figure is 51.2%, making a 40% reduction materially harder.                              | §10.3                                                                                                      | VSS with tdh and donor | Before next reporting cycle   |
| 20 | Adjust the endline analysis for four documented baseline differences: HFIAS, chronic illness, HDDS and respondent age. Report impact estimates with the control-selection limitation stated. | §8.1                                                                                                       | Endline analyst        | 2029, but specify now         |
| 21 | Standardise all data collection devices to a single current form version before any further data collection, and add a form-version check to daily field review.                             | Two KoboCollect form versions ran concurrently, producing the anthropometry calculation                    | VSS M&E                | Before any next round         |

| #  | Recommendation                                                                                                                                                                                     | Basis                                                    | Owner        | When                                   |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------|----------------------------------------|
|    |                                                                                                                                                                                                    | problem corrected in this report (§3.9)                  |              |                                        |
| 22 | Add two fields to the survey instrument recording whether the family was advised and whether the AWW was informed. This converts an unverifiable process into a documented one at negligible cost. | Advisory referral mechanism leaves no record (§9.3)      | VSS M&E      | Before endline instrument is finalised |
| 23 | Repeat the endline identically – same tools, same indicator definitions, same index-child basis, same 12-group HDDS scoring, same WHO plausibility exclusions.                                     | Comparability requires identical measurement (Chapter 3) | Endline team | 2029                                   |

**One point on recommendation 17.** The form-version problem was identified and corrected during analysis, and the corrected figures are used throughout this report. But it was found by chance during a data audit, not by any routine check. A daily form-version verification would have caught it in the first week of fieldwork rather than after data collection closed.

## 11.4 VSS Management and Partners

Four recommendations concerning governance of the report itself and of the evidence it rests on.

**Table 4. Recommendations for Management**

| #  | Recommendation                                                                                                                                                                                                                 | Basis                                                                                                    | Owner              | When                           |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------|--------------------------------|
| 24 | Complete the status table at §9.5 before the report is released externally. Record what has been done about the identified caseload, whether complete or not.                                                                  | Chapter 9                                                                                                | VSS management     | Before publication             |
| 25 | Document the 2024–25 preparatory phase formally. Record which villages received kitchen garden and poultry support, what was distributed and when, so endline analysis can account for it precisely rather than approximately. | Kitchen garden difference between arms (50.2% against 25.2%) traced to preparatory activity (§1.5, §7.3) | VSS management     | Within 3 months                |
| 26 | Establish a data quality review step between data collection and analysis for all future rounds, with a named owner.                                                                                                           | The anthropometry calculation error and the two form versions were both found late (§3.9)                | VSS M&E lead       | Before next round              |
| 27 | Share district-specific findings with block and district officials in Guna and Shivpuri, using the one-page summaries rather than the full report.                                                                             | Findings differ materially by district and are directly relevant to local service delivery (§8.2)        | VSS district teams | Within 3 months of publication |

## 11.5 Priority Actions

If the recommendations above must be sequenced, the following should come first.

**Table 5. Priority Actions in the First Three Months**

| Priority | Action                                                                       | Why first                                                                                               |
|----------|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 1        | Share the caseload with WCD and Health, and trace the 57 SAM cases (Rec. 14) | Concerns identified individuals at immediate risk; several months have already passed since measurement |
| 2        | Complete the §9.5 status table (Rec. 24)                                     | Required before the report can be released externally with credibility                                  |
| 3        | Settle the PZ1.2 target wording and review PZ1.3 (Rec. 18, 19)               | Cheap to resolve now; contentious and expensive to resolve at endline                                   |
| 4        | Begin the PMMVY and Prasuti Sahayata enrolment drive (Rec. 13)               | Highest nutritional return for the least programme cost; uses an existing entitlement                   |
| 5        | Reweight the year-1 workplan towards access and awareness (Rec. 1)           | Affects budget and activity design; harder to change once the year is underway                          |
| 6        | Complete the anaemia addendum (Rec. 17)                                      | The baseline is incomplete without it                                                                   |

The remaining recommendations are important but can follow within the first year without loss.

---

*Sources for this chapter: findings and conclusions reported in Chapters 5 to 10. Owners and timeframes are proposed for discussion and should be confirmed by VSS management and terre des hommes before adoption.*

## Annexure I – Qualitative Findings

### I.1 Purpose and Scope

This annex reports the qualitative component of the baseline. Its purpose is not to duplicate the survey but to explain it – to establish why the measured patterns occur, what households themselves identify as the constraints, and where the survey instrument could not reach.

The analysis follows a standard framework approach: familiarisation with transcripts, initial coding, development of a thematic framework, coding and grouping, and comparison across groups and locations. Coding was both deductive (against the discussion guide and the study objectives) and inductive (allowing unexpected themes to emerge). Throughout, participants' views are reported separately from the analyst's interpretation, and divergent or minority views are retained rather than averaged away.

**A note on what this evidence can and cannot do.** Focus group discussions establish meaning, reasoning and context. They do not establish prevalence. No percentages are calculated from these discussions, and where a participant offers an estimate it is reported as their estimate, not as a finding. Where a qualitative statement appears to conflict with a survey figure, Section I.7 examines the discrepancy rather than resolving it silently in favour of either source.

### I.2 Focus Groups Discussion - What Was Covered

Ten group discussions were held across the two districts, alongside interviews with Anganwadi workers. Groups were selected to reach the populations the survey measures – mothers of children aged 6–23 months, women of reproductive age, youth and adolescent girls.

**Table 1. Discussion Inventory**

| District | Location                         | Participants                          | Principal topics                                                                                                                                                                                |
|----------|----------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Shivpuri | Mahaloni (FGD-1)                 | Women lactating, children 6–23 months | Minimum acceptable diet; food restrictions in pregnancy and lactation; take-home ration; livelihood; migration; social protection and barriers to access                                        |
| Shivpuri | Women's group (FGD-2)            | Women of reproductive age             | Women's dietary diversity; nutrition garden; staple diets; myths and misconceptions on restricted foods; take-home ration; migration; how to raise dietary diversity within present constraints |
| Shivpuri | Chhota Lengda (FGD-3)            | Youth                                 | Agriculture and practices; migration; social protection awareness; recent changes in income generation; food habits; coping during distress; sanitation                                         |
| Shivpuri | Hinautiya panchayat area (FGD-4) | Youth                                 | Child rights; violence against women and children; gender-based violence; women's safety; Anganwadi functioning; schooling                                                                      |
| Guna     | Bisoniya                         | Youth                                 | Work and migration; nutrition garden and poultry; daily diet; seasonality; food procurement; water; sanitation; schemes; decision-making                                                        |
| Guna     | Dudhai                           | Women's group; Anganwadi worker       | Complementary feeding; daily diet; child feeding; take-home ration; post-delivery feeding; growth monitoring                                                                                    |

| District | Location    | Participants     | Principal topics                                                                                                                      |
|----------|-------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Guna     | Chhapri     | Adolescent girls | Education and dropout; fundamental rights; diet; gender differences in feeding                                                        |
| Guna     | Wagheri     | Women's group    | Wage labour; child labour; child feeding; growth faltering; anaemia and IFA; pregnancy and post-partum practice; seasonality; poultry |
| Guna     | Badhanpur   | Women's group    | Cropping; migration; livestock; kitchen garden; pregnancy practice; delivery; decision-making; sanitation                             |
| Guna     | Salaiya Rai | Women's group    | Pregnancy and post-partum restrictions; complementary feeding; community food practice; kitchen garden; inputs; decision-making       |

Note: Source documents: 'Community focus group report' (Shivpuri, structured report format) and 'FGD Guna' (verbatim question-and-answer transcript). The difference in format matters for interpretation and is discussed in Section 1.8.

### 1.3 Key Findings

Eight findings emerged with sufficient consistency across groups to be reported with confidence.

#### 3.1 Hunger is largely resolved; dietary quality is not

No group identified going without food as a current problem. Participants attributed this to four things working together: reliable subsidised grain through the Public Distribution System, own production, payment in grain rather than cash for agricultural labour, and the Ladli Behna cash transfer. Where a household does fall short, it borrows from neighbours, relatives or the village shop and repays after harvest or on return from migration.

*“घर में अब कोई भूखा नहीं सोता है।”* – Youth group, Bisoniya, Guna

*“सरकारी योजनाओं के कारण अनाज की कमी नहीं होती।”* – Anganwadi and ASHA workers, Chhota Lengda, Shivpuri

This is not a universal position. Women in Wagheri reported running short once or twice a month, and one Shivpuri group described four months of sustained financial stress. The pattern is that grain sufficiency is broadly achieved while nutritional adequacy is not – which is precisely the divergence the survey records between low HFIAS scores and very poor dietary diversity.

#### 3.2 Cost, not knowledge, is the stated barrier

Asked what they would eat if they had more money, participants in every group named the same foods without prompting: chicken, eggs, fruit, paneer, fish. They also confirmed that this is not hypothetical – diets visibly change when a migrant member returns with cash.

*“अधिक पैसा आएगा तो फल, चिकन, पनीर, अंडा की भी खाने की इच्छा रहेगी; पैसा ना होने के कारण नहीं खा पाते हैं।”*  
– Youth group, Bisoniya, Guna

Knowledge of what constitutes a good diet was also present in less prompted forms. Women in Shivpuri described fruit as something that builds blood and strength. This is the clearest qualitative evidence that the constraint on dietary diversity is affordability and availability rather than awareness. However, this can not be generalize and we need to address the knowledge and awareness needs with less exposures and low education levels.

#### 3.3 Migration constrains nutrition through time as much as income

Migration is the organising fact of the annual cycle. Participants described whole families moving, contractor-mediated group migration, and in one Shivpuri village an average of five members from a household of six leaving for work.

The nutritional consequence that participants themselves emphasised, however, was not lost income – income rises during migration – but lost time. Asked why kitchen gardens are not more common, why growth monitoring is missed and why Anganwadi attendance is low, the answer in each case was absence.

*“पानी की समस्या के कारण एवं पोषण वाटिका की देख-रेख नहीं हो पाती है, पलायन या मजदूरी पर चले जाने के कारण।”*

– Youth group, Bisoniya, Guna

*“हम काम पर चले जाते हैं, कोई ध्यान नहीं रख पाता है।”* – Women’s group, Wagheri, Guna – asked why older children become thin

### 3.4 Migration income is absorbed by debt before it reaches food

Households take goods on credit from village shops during lean periods and clear the debt on return. Participants described the arithmetic directly.

*“₹20,000 कमाने पर ₹10,000 कर्ज चुकाने में और केवल ₹5,000 घर के लिए बचते हैं।”* – Youth group, Chhota Lengda, Shivpuri

In one Guna village women described an advance of ₹50,000 that tied household labour for a full year with little net gain. Interventions assuming that migration earnings will fund better diets should account for this.

### 3.5 Take-home ration is refused on quality grounds

Rejection of supplementary food was reported in both districts and was consistently attributed to quality – grit, stale smell, bitterness – rather than to indifference. The most significant testimony came from an Anganwadi worker herself.

*“खाने में कंकर आ जाते हैं जो हमने विभाग को भी बोला है। जो पैकेट मिलता है उसमें बदबू आती है।”* – Anganwadi worker, Dudhai, Guna

*“सूत खाया जाता है, लेकिन कड़वा लगने के कारण चावल की खिचड़ी बच्चे या घर का कोई सदस्य नहीं खाता और उसे गाय को दे दिया जाता है।”* – Women lactating with 6–23 month children, Mahaloni, Shivpuri

A second issue surfaced alongside this. Where quality was acceptable, participants said the whole household ate the ration – meaning supplementary food intended for a child is shared across the family. Both problems are supply-side; neither is addressable through counselling.

### 3.6 Complementary feeding begins early, with commercial snacks

Several Guna groups reported introducing foods other than breast milk from three to five months. The foods named were not prepared complementary foods but biscuits, tea and toast, milk-soaked roti and kurkure.

*“६ माह के बाद ऊपरी आहार देते हैं। 3–4 माह के बाद भी दे देते हैं।”* – Women’s group, Dudhai, Guna

*“बच्चे चिप्स बिस्किट लगभग रोज खाते हैं।”* – Women’s group, Dudhai, Guna

One Shivpuri group reported correct exclusive breastfeeding to six months, so the practice is not universal. Participants also described specific foods withheld from children under two – green leafy vegetables, urad dal, brinjal and colocasia – several of which are food groups the diet is already short of.

### 3.7 Food restrictions remove high-value foods when they are most needed

Restrictions during pregnancy and after delivery were reported in most groups and centred on the most nutrient-dense items available.

*“अंडा- गर्भपात का डर रहता है। पपीता- गर्भ पर बुरा असर माना जाता है।”* – Women’s group, Shivpuri (FGD-2)

Post-partum restrictions were reported to last from fifteen days to two months and covered potato, brinjal and sour foods including mango, tamarind and tomato. Some energy-dense practice does persist – laddu, dalia and ghee are given after delivery.

**An important divergence.** Women in Badhanpur, Guna stated plainly that no food restrictions apply during pregnancy in their village. This single contrary case is analytically valuable: it demonstrates that these restrictions are social convention rather than fixed belief, and it provides a local counter-example that is likely to carry more weight in counselling than externally supplied advice.

*“गर्भवती महिला के लिए कोई परहेज नहीं है।”* – Women’s group, Badhanpur, Guna

### 3.8 Kitchen gardens and poultry fail for operational reasons

Neither activity was rejected on grounds of interest. Participants raised both spontaneously as routes to better nutrition and income. The obstacles named were specific and practical: water, and the absence of anyone to tend a garden during migration. For poultry, predation and the lack of enclosures.

*“बिल्ली की परेशानी है, जंगली बिल्ली बहुत है, इस कारण नहीं करते हैं।”* – Women’s group, Wagheri, Guna – asked why they do not keep poultry

Where seed had been supplied and water was available, uptake was reported as successful, with vegetables available daily through to Holi. This suggests the binding constraints are addressable through design rather than persuasion.

## 1.4 Differences Between the Two Districts

The discussions reinforce the structural contrast the survey records, and add detail on how it is experienced.

**Table 2. District Contrasts Emerging from the Discussions**

| Dimension               | Guna                                                                                                            | Shivpuri                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Migration pattern       | Shorter trips, two to three times a year, contractor-mediated; ₹500–600 per day with board and lodging arranged | Longer absences of four to six months; whole families move; deeper debt cycle                        |
| Water                   | Borewell and government handpump; Jal Jeevan Mission pipeline laid but not yet functional                       | Severe scarcity; one open well in one village; water carried on the head; toilets built but unusable |
| Complementary feeding   | Early initiation at three to five months reported repeatedly                                                    | One group reported correct exclusive breastfeeding to six months                                     |
| Land                    | Some own land; land mortgaged or sharecropped under stress                                                      | More landless households; five to seven bigha where owned                                            |
| Community food practice | Caste-based variation reported – some communities abstain from meat, fish and eggs                              | Consumption reported as occasional and cost-limited rather than prohibited                           |

*“हम पटेलिया नहीं खाते हैं, भील और बरेला खाते हैं।”* – Women’s group, Salaiya Rai, Guna – on meat, fish and egg consumption

This last point has direct programme relevance. Poultry and egg promotion cannot be assumed to be universally acceptable and should be designed with community food practice in mind.

## I.5 Deeper Insights

The following interpretations go beyond description. They are the analyst's reading of what the evidence implies, and are distinguished here from the participant statements reported above.

- ❖ Food security and nutrition security have decoupled. Public policy has solved calorie adequacy through the PDS and has not addressed micronutrient adequacy at all. This explains why the survey's food insecurity scores look benign alongside severe undernutrition: the two instruments measure different problems, and only one has been addressed.
- ❖ The caregiving constraint is under-recognised. Migration is normally analysed as an income phenomenon. In these villages participants consistently framed it as an absence phenomenon, and the activities that fail – gardens, growth monitoring, centre attendance – are those requiring sustained daily attention. Programme designs that assume a present caregiver will underperform in the households most in need.
- ❖ Commercial snacks are outcompeting home foods on the caregiver's real constraints. They are cheap in small amounts, shelf-stable, need no preparation, and satisfy a child immediately. For a caregiver about to leave for work, these are decisive advantages that nutritional messaging does not address.
- ❖ Take-home ration rejection is a quality failure being read as a behaviour problem. The evidence for this is unusually strong because it includes an Anganwadi worker's own account. Demand-side counselling cannot fix stale rations.
- ❖ Restrictions are tractable precisely because they are inconsistent. The contrast between Shivpuri's egg and papaya prohibitions and Badhanpur's stated absence of any restriction shows these are conventions, not fixed beliefs.
- ❖ Women control food decisions but not food priority. Deciding what is cooked is not the same as eating adequately, and men eating first was explicitly justified in breadwinner terms. Women's consumption of animal-source foods was described as invisible to the household because it occurs, when it occurs, outside the home and among men.
- ❖ Water scarcity constrains three outcomes simultaneously in Shivpuri – drinking water safety, sanitation use and kitchen gardening. It therefore carries the highest cross-sector return of any single intervention identified in this baseline.
- ❖ Communities are proposing the same solutions the project proposes. Poultry, goat rearing, collective vegetable plots on land with assured water, and crop insurance were all raised by participants unprompted. Implementation is better framed as support to community-identified solutions than as introduction of new practice.
- ❖ Anganwadi workers are simultaneously the essential delivery channel and an under-equipped one. Within these discussions they reported no specific knowledge of child rights, an incompletely maintained growth register, and ration quality complaints they could not resolve. Capacity investment needs to precede reliance on the channel.

## I.6 Programme Implications

**Table 3. Implications for Design and Implementation**

| Area                  | Implication arising from the discussions                                                                                                                  |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Complementary feeding | Counselling must begin before six months. Feeding of other foods commonly starts at three to five months, and the foods introduced are commercial snacks. |

| Area                   | Implication arising from the discussions                                                                                                                                                                                      |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Counselling content    | Name the specific foods being withheld – green leafy vegetables, pulses, brinjal, colocasia for children; egg, papaya, mango, ghee, groundnut and curd for pregnant women. General advice will not displace specific beliefs. |
| Take-home ration       | Escalate quality to the department, using the Anganwadi worker's own testimony. Address household sharing of child rations separately.                                                                                        |
| Kitchen gardens        | Site by water availability; make an explicit caretaker arrangement for migration periods; continue seed supply, which showed demonstrated uptake.                                                                             |
| Poultry                | Supply enclosures alongside birds; segment promotion by community food practice.                                                                                                                                              |
| Timing                 | Align training, distribution and counselling to the migration calendar – Jeth, Kunwar, Aghan and Vaishakh in Shivpuri; March and July wage peaks in Guna.                                                                     |
| Alternatives to snacks | Position banana, egg, milk or roasted groundnut as the affordable option at the moment a child is crying. Participants already buy bananas in exactly this situation.                                                         |
| Anaemia                | Counsel on managing iron tablet side-effects, not only on supply. Participants reported stopping tablets because of stomach pain.                                                                                             |
| Social protection      | Provide documentation facilitation. Missing identity documents were named as a barrier to claiming entitlements, and one group asked the survey team directly how to obtain a family ID and ration card.                      |
| Water                  | Pursue completion of the Jal Jeevan Mission line in Guna and borewell or motor repair in Shivpuri through district convergence.                                                                                               |
| Capacity building      | Train Anganwadi workers on child rights and growth monitoring before relying on them for either.                                                                                                                              |

## I.7 Where the Discussions and the Survey Diverge

Three differences should be recorded rather than reconciled silently. In each case the likely explanation is a difference in what was being asked, not an error in either source.

**Table 4. Points of Divergence**

| Topic                             | Discussions                                                                                      | Survey                                                                            | Assessment                                                                                                                                                                                                                                                                 |
|-----------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Migration in Guna                 | 60–80% of families said to migrate or go out for wage work (Bisoniya)                            | 45.2% of Guna households have a migrant member                                    | A participant estimate for one village, appearing to combine seasonal migration with local wage labour. Use the survey figure; the estimate indicates how large the combined burden of absence feels locally.                                                              |
| Household decision-making in Guna | Guna groups consistently reported husband and wife deciding together                             | 57.0% of Guna households report the man alone deciding on income use; 42.3% joint | Group settings elicit the socially preferred answer, and the discussion question concerned planning while the survey asked who decides. Use the survey figure. The divergence itself indicates joint decision-making is the stated norm even where it is not the practice. |
| Alcohol and tobacco               | Around 50% of people in the village estimated to use alcohol, tobacco or pouches (Chhota Lengda) | 92.2% of Shivpuri households report any addiction                                 | Not comparable measures. The survey counts a household where any member uses; participants were estimating individuals. Consistent once the distinction is made.                                                                                                           |

One point of close agreement is worth recording alongside these. A Shivpuri group reported that 20 families in their village had established kitchen gardens. Against a village of roughly 150 households that is close to the 15.6% the survey records for Shivpuri as a whole.

**One gap rather than a disagreement.** The survey did not measure exclusive breastfeeding; it reports continued breastfeeding at 87.0%, which is high. The discussions indicate complementary feeding frequently begins at three to five months. Continued breastfeeding should therefore not be read as evidence that early feeding practice is sound. Measuring exclusive breastfeeding at endline would close this gap.

## I.8 Limitations

- The two source documents differ in kind. The Guna material is a verbatim question-and-answer transcript; the Shivpuri material is a structured report. Shivpuri findings have already passed through an interpretive layer, and quotes drawn from them are less reliably participants' own words. Quotes in this annex are attributed accordingly.
- Facilitator input appears within several sessions. Nutrition messaging on food groups was delivered during the discussions themselves. Responses recorded after those inputs may reflect prompting rather than independently held views, and have not been treated as evidence of prior knowledge.
- Participant numbers and demographic detail are not recorded for most groups. No frequencies or proportions are calculated from this material and none should be inferred from it.
- The adolescent girls' group produced no clear response on fundamental rights or on reasons for leaving school. This is recorded as non-response, not as evidence that no issue exists.
- Anaemia was discussed substantively in one group only. The finding on iron tablet side-effects is reported as a single-group observation and should not be generalised without further enquiry.
- Several claims rest on a single source and could not be corroborated: land reportedly repossessed by forest officials with intimidation (Wagheri), an ASHA worker reportedly not assisting during delivery (Shivpuri), and teacher absenteeism (Shivpuri). These are recorded as participant perceptions.
- No male-only group was held in Shivpuri and no group of older people was held in either district. The disadvantage to older household members inferred in the main report from intra-household distribution patterns remains unevidenced qualitatively.
- Take-home ration quality was reported by participants and by an Anganwadi worker but was not physically verified.

## I.9 Matters Requiring Separate Follow-Up

Two accounts emerged that fall outside nutrition and should be routed to the appropriate project function rather than absorbed into this annex.

- Child wage labour. Women in Wagheri, Guna described children working alongside adults applying fertiliser in maize and being paid ₹300 per day. This is a single-source account and was not corroborated, but it warrants a child protection response rather than analytical treatment.
- Land and intimidation. Women in Wagheri also described land being repossessed by forest range officials, with reference to intimidation with firearms and huts being burned, reportedly after the lockdown period. This is uncorroborated and outside the scope of this survey, but should be recorded and referred rather than omitted.

---

*Sources: ten focus group discussions and accompanying Anganwadi worker interviews conducted alongside the baseline survey in Guna and Shivpuri districts, July–August 2026. Quotations are reproduced in the language of record with location and respondent group attributed. Findings from this annex are integrated at the relevant points in Chapters 5 to 9 of the main report.*

# SAMPOSHAN PROJECT

## Baseline Survey — Household Questionnaire

Guna (Bamori block) & Shivpuri (Pohri block), Madhya Pradesh

**Language:** Bilingual (English / हिंदी)

**Survey Period:** July 2026

**Tool:** KoboToolbox — digital data collection

**Instructions to enumerator:** *Read each question clearly. Record responses accurately. Do not suggest answers. For select questions, circle the code of the chosen answer.*

Good day. My name is [Enumerator Name], and I am a member of the survey team for the "SAMPOSHAN (Trans-regional, Gender-responsive Food Security and Livelihood Strengthening) Project." This project is aligned with state and central government programmes such as Poshan Abhiyaan, food-grain distribution, supplementary nutrition distribution, and sustainable livelihoods, which are being implemented to improve the nutrition status of women and children and to ensure food security in our villages.

नमस्ते! (अभिवादन के स्थानीय तरीकों का इस्तेमाल करें।)

मेरा नाम [साक्षात्कारकर्ता का नाम] है और मैं "सम्पोषण (ट्रांस-रीजनल, जेंडर विशेष खाद्य सुरक्षा और आजीविका मजबूतीकरण) परियोजना" के सर्वेक्षण टीम का सदस्य/सदस्या हूँ।

**Purpose of survey:** Our survey aims to understand the household information, food security, nutrition, livelihoods, access to drinking water, and the status of malnutrition and other related development indicators among children and women in project villages. This information will be used to plan the project and improve its activities. It will also help us understand improvements in various development indicators compared to the situation before project implementation.

हमारे सर्वेक्षण का उद्देश्य परियोजना गाँवों में परिवार की घरेलू जानकारी, खाद्य सुरक्षा, पोषण, आजीविका, पेयजल तक पहुँच, और बच्चों तथा महिलाओं में कुपोषण व अन्य संबंधित विकास संकेतकों की स्थिति को समझना है।

**Confidentiality:** Please be assured that any information you provide will be used only for the purposes of this project. Responses will be presented in an aggregated/statistical form, keeping personal identifiers (such as your name and address) separate, so that no individual can be identified. Personal information will be kept secure and will only be accessible to authorised team members.

निश्चित रहिये जो भी जानकारी आप देंगे उसे केवल इस परियोजना के उद्देश्यों के लिए ही उपयोग किया जाएगा। उत्तरों को समेकित/सांख्यिकीय रूप में प्रस्तुत किया जाएगा ताकि किसी एक व्यक्ति की पहचान न की जा सके।

**Data protection:** All information you provide will be kept strictly confidential. During data collection, storage, and processing we will comply with the Digital Personal Data Protection Act (DPDP Act 2023) and related privacy rules. Your personal data will not be shared with any third party beyond the project's purpose without your explicit consent, unless there is a legal reason to do so.

आपकी दी गई सभी जानकारी गोपनीय रखी जाएँगी। हम डिजिटल व्यक्तिगत डेटा संरक्षण अधिनियम (DPDP Act 2023) और संबंधित गोपनीयता नियमों का पालन करेंगे।

**Voluntary participation:** Your participation in this survey is completely voluntary. You may refuse to answer any question or stop the interview at any time without giving a reason. This will have no negative consequences for you.

इस सर्वेक्षण में भाग लेना पूरी तरह से आपकी सहमति पर निर्भर है। आप किसी भी समय बिना कारण बताए किसी प्रश्न का उत्तर देने से इंकार कर सकते हैं – इससे आपको कोई नुकसान नहीं होगा।

**Right to withdraw:** If you wish, you may in the future ask for your information to be removed or withdraw your consent — in that case we will explain the procedure and its limitations.

यदि आप चाहें तो भविष्य में अपनी जानकारी हटवाने या सहमति वापस लेने के बारे में पूछ सकते हैं।

**Estimated time:** This interview will take approximately 45–60 minutes.

अनुमानित समय: यह साक्षात्कार लगभग 45-60 मिनट लेगा।

**Responses:** There are no right or wrong answers — we are interested in your honest experiences and perspectives.

प्रश्नों के उत्तर: किसी भी उत्तर का 'सही' या 'गलत' होना जरूरी नहीं है; हम आपके ईमानदार अनुभव और विचार जानना चाहते हैं।

**Do you agree to participate in this survey? If yes, please say so — and if you have any questions (how data will be handled, how to withdraw consent, or any other concern), I will clarify them now.**

क्या आप इस सर्वेक्षण में भाग लेने के लिए सहमत हैं? यदि हाँ, तो कृपया बताइए – और यदि आपके कोई प्रश्न हों (डेटा कैसे संभाला जाएगा, सहमति वापस लेने का तरीका, या कोई अन्य चिंता), तो मैं उन्हें अभी स्पष्ट कर दूँगा/दूँगी।

**ENUMERATOR INSTRUCTION:** Read the following statement clearly to the respondent before beginning the interview.

साक्षात्कारकर्ता निर्देश: साक्षात्कार शुरू करने से पहले नीचे लिखा हुआ कथन उत्तरदाता को स्पष्ट रूप से पढ़कर सुनाएँ।

## CONSENT & ENUMERATOR DETAILS

सहमति एवं साक्षात्कारकर्ता विवरण

1. **Consent obtained**

सहमति प्राप्त हुई

[ Circle one ]

1. Yes (हाँ) | 2. No (नहीं)

2. **Reason if no consent**

यदि सहमति नहीं मिली तो कारण दर्ज करें

[Skip unless: [consent]='2']

[ Write answer ]

3. **Upload consent letter image**

सहमति पत्र की इमेज अपलोड करें

[Skip unless: [consent]='1']

[ Photo ]

4. **Consent letter uploaded**

सहमति पत्र अपलोड की गयी

[Skip unless: [consent]='1']

[ Circle one ]

option\_1. Yes (हाँ) | option\_2. No (नहीं)

5. **Survey ID**

सर्वेक्षण आईडी

[ Write answer ]

6. **Enumerator-1 Name**

साक्षात्कारकर्ता-1 का नाम

[ Write answer ]

7. **Enumerator-2 Name**

साक्षात्कारकर्ता-2 का नाम

[ Write answer ]

8. **Date of Interview**

साक्षात्कार की तारीख

[ Date (DD/MM/YYYY) ]

## INTERVIEW LOCATION

|    |                                     |                |
|----|-------------------------------------|----------------|
| 9. | <b>District Name</b><br>जिले का नाम | [ Circle one ] |
|----|-------------------------------------|----------------|

guna. Guna (गुना) | shivpuri. Shivpuri (शिवपुरी)

|     |                                      |                |
|-----|--------------------------------------|----------------|
| 10. | <b>Block Name</b><br>विकासखंड का नाम | [ Circle one ] |
|-----|--------------------------------------|----------------|

bamori. Bamori (बमोरी) | pohri. Pohri (पोहरी)

|     |                                                   |                |
|-----|---------------------------------------------------|----------------|
| 11. | <b>Gram Panchayat Name</b><br>ग्राम पंचायत का नाम | [ Circle one ] |
|-----|---------------------------------------------------|----------------|

khyawda. Khyawda (ख्यावदा) | kontar. Kontar (कोंतर) | rampur. Rampur (रामपुर) | visoniya. Visoniya (विसोनिया) | simrod. Simrod (सिमरोद) | bageri. Bageri (बगेरी) | akoda. Akoda (अकोदा) | mohanpur\_khurd. Mohanpur Khurd (मोहनपुर खुर्द) | vittalpur. Vittalpur (विठ्ठलपुर) | dongari. Dongari (डोंगरी) | OtherBamori. Other Bamori (अन्य बमोरी) | upsil. Upsil (उपसील) | markheda. Markheda (मरखेड़ा) | dobha. Dobha (डोभा) | parasari. Parasari (परासरी) | agarra. Agarra (अगरा) | ghatai. Ghatai (घटाई) | mahadeva. Mahadeva (महादेवा) | bilaua. Bilaua (बिलोआ) | hinotiya. Hinotiya (हिनोतिया) | mahloni. Mahloni (महलोनी) | OtherPohri. Other Pohri (अन्य पोहरी)

|     |                                    |                |
|-----|------------------------------------|----------------|
| 12. | <b>Village Name</b><br>गाँव का नाम | [ Circle one ] |
|-----|------------------------------------|----------------|

khyawda. Khyawda (ख्यावदा) | aantarsouna. Aantarsouna (आंतरसूना) | dudhai. Dudhai (दुधई) | chhapri. Chhapri (छापरी) | ganeshpura. Ganeshpura (गणेशपुरा) | kontar. Kontar (कोंतर) | rampur. Rampur (रामपुर) | cheem. Cheem (चीम) | visoniya. Visoniya (विसोनिया) | gankarkheda. Gankarkheda (गनकरखेड़ा) | kitarra. Kitarra (किटरी) | bageri. Bageri (बगेरी) | nonera. Nonera (नोनेरा) | bhensatori. Bhensatori (भेंसाटोरी) | khairoda. Khairoda (खैरोदा) | badanpur. Badanpur (वडनपुर) | sanawani. Sanawani (सनावनी) | nanipura. Nanipura (नानीपुरा) | vittalpur. Vittalpur (विठ्ठलपुर) | gopalpur. Gopalpur (गोपालपुर) | nagfani\_salaiya. Nagfani Salaiya (नागफनी सलैया) | salaiya\_rai. Salaiya Rai (सलैया राय) | bhotupura. Bhotupura (भोटपुरा) | genhukheda. Genhukheda (गेहूँखेड़ा) | dongari. Dongari (डोंगरी) | machakhurd. Machakhurd (मचाखुर्द) | bhojpur. Bhojpur (भोजपुर) | kankara. Umri Kankara (उमरी कंकरा) | markheda. Markheda (मडखेड़ा) | dehde. Dehde (देहदे) | kolhapur. Kolhapur (कोल्हापुर) | upsil. Upsil (उपसील) | lokhari. Lokhari (लोखरी) | patta. Patta (पट्टा) | parasari. Parasari (परासरी) | agarra. Agarra (अगरा) | bhavkhedi. Bhavkhedi (भावखेड़ी) | kerkui. Kerkui (केरकुई) | ghatai. Ghatai (घटाई) | bhainsda. Bhainsda (भैंसदा) | baglon. Baglon (बागलोन) | mahadeva. Mahadeva (महादेवा) | dobha. Dobha (डोभा) | kudi. Kudi (कुडी) | bilaua. Bilaua (मोहरा बिलौआ) | hinotiya. Hinotiya (हिनोतिया) | chhota\_laingda. Chhota Laingda (छोटा लैंगड़ा) | mahloni. Mahloni (महलोनी) | para. Para (पारा) | gajet. Gajet (गाजेट) | other1. other (अन्य) | other2. other (अन्य)

|     |                                                                                         |                           |
|-----|-----------------------------------------------------------------------------------------|---------------------------|
| 13. | <b>Other Village Name</b><br>अन्य गाँव का नाम<br><i>[Skip unless: if Other Village]</i> | [ Write answer ]<br>_____ |
| 14. | <b>Mohalla / Falia / Para</b><br>मोहल्ला / फलिया / पाड़ा                                | [ Write answer ]<br>_____ |

## RESPONDENT PROFILE

उत्तरदाता का विवरण

|      |                                                                     |                           |
|------|---------------------------------------------------------------------|---------------------------|
| 15a. | <b>Head of HH Name</b><br>परिवार के मुखिया का नाम                   | [ Write answer ]<br>_____ |
| 15.  | <b>Name of Respondent (Optional)</b><br>उत्तरदाता का नाम (वैकल्पिक) | [ Write answer ]<br>_____ |
| 16.  | <b>Age of Household Head (years)</b><br>उत्तरदाता की आयु (वर्ष)     | [ Number ]<br>_____       |
| 17.  | <b>Sex of Respondent</b><br>उत्तरदाता का लिंग                       | [ Circle one ]<br>_____   |

\_\_ Male (पुरुष) | \_\_1. Female (स्त्री) | \_\_2. Other (अन्य)

|     |                                                |                         |
|-----|------------------------------------------------|-------------------------|
| 18. | <b>Caste / Social Category</b><br>सामाजिक वर्ग | [ Circle one ]<br>_____ |
|-----|------------------------------------------------|-------------------------|

st. ST (अनुसूचित जनजाति (ST)) | sc. SC (अनुसूचित जाति (SC)) | obc. OBC (अन्य पिछड़ा वर्ग (OBC)) | general. General (सामान्य)

|     |                                                                  |                         |
|-----|------------------------------------------------------------------|-------------------------|
| 19. | <b>Education Level of Respondent</b><br>उत्तरदाता की शिक्षा स्तर | [ Circle one ]<br>_____ |
|-----|------------------------------------------------------------------|-------------------------|

99. Don't know (पता नहीं/मालूम नहीं / कह नहीं सकते) | illiterate. Illiterate (निरक्षर) | literate\_no\_school. Literate without formal schooling (औपचारिक स्कूलिंग के बिना साक्षर) | pre\_primary. Pre-primary / Anganwadi (प्री-प्राइमरी / आंगनवाड़ी) | primary. Primary (Class 1-5) (प्राथमिक (कक्षा 1-5)) | middle. Middle School (Class 6-8) (मिडिल स्कूल (कक्षा 6-8)) | matric. Matriculation (Class 9-10) (हाई स्कूल (कक्षा 9-10)) | higher\_sec. Higher Secondary (Class 11-12) (हायर सेकेंडरी (कक्षा 11-12)) | vocational. Vocational/Technical Training/ITI (व्यावसायिक/तकनीकी प्रशिक्षण/ITI) | graduation. Graduation (BA, BSc, BCom etc.) (स्नातक) | post\_grad. Post-Graduation (MA, MSc, MEd etc.) (स्नातकोत्तर)

## MODULE A: HEALTH, VULNERABILITY & SOCIAL PROTECTION

मॉड्यूल A: स्वास्थ्य, संवेदनशीलता एवं सामाजिक संरक्षण

|     |                                                                                                                                       |                |
|-----|---------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 20. | Does any household member suffer from a long-term / chronic illness?<br>क्या परिवार का कोई सदस्य लंबी/दीर्घकालिक बीमारी से पीड़ित है? | [ Circle one ] |
|-----|---------------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं) | 3. Don't Know/Prefer not to say (पता नहीं / बताना नहीं चाहते)

|     |                                                                                                        |                     |
|-----|--------------------------------------------------------------------------------------------------------|---------------------|
| 21. | Number of ill / infected members<br>बीमार/संक्रमित सदस्यों की संख्या<br><i>[Skip unless: [A7]='1']</i> | [ Number ]<br>_____ |
|-----|--------------------------------------------------------------------------------------------------------|---------------------|

|     |                                                                                                 |                           |
|-----|-------------------------------------------------------------------------------------------------|---------------------------|
| 22. | Type of condition (multiple)<br>बीमारी का प्रकार (एक से अधिक)<br><i>[Skip unless: [A7]='1']</i> | [ Circle all that apply ] |
|-----|-------------------------------------------------------------------------------------------------|---------------------------|

1. HIV (एचआईवी) | 3. Diabetes (मधुमेह) | 2. TB (क्षय रोग (TB)) | 4. Hypertension (उच्च रक्तचाप) | 5. Physical disability (शारीरिक विकलांगता) | 6. Visual impairment (अंधापन) | 7. Hearing impairment (बहरापन) | 8. Mental health condition (मानसिक रोग) | 8a. cancer (केन्सर) | 8b. Paralysis (लकवा) | 8c. heart disease (दिल की बीमारी) | 9. Other (अन्य)

|     |                                                                                                   |                           |
|-----|---------------------------------------------------------------------------------------------------|---------------------------|
| 23. | Other conditions (specify)<br>अन्य (कृपया स्पष्ट करें)<br><i>[Skip unless: if Other selected]</i> | [ Write answer ]<br>_____ |
|-----|---------------------------------------------------------------------------------------------------|---------------------------|

|     |                                                                                      |                |
|-----|--------------------------------------------------------------------------------------|----------------|
| 24. | Currently receiving treatment?<br>उपचार हो रहा है?<br><i>[Skip unless: [A7]='1']</i> | [ Circle one ] |
|-----|--------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं) | 3. Partial (आंशिक) | 99. Don't Know (पता नहीं)

|     |                                                                                                     |                |
|-----|-----------------------------------------------------------------------------------------------------|----------------|
| 25. | Does any family member use any substance / addiction?<br>क्या परिवार के किसी सदस्य को कोई व्यसन है? | [ Circle one ] |
|-----|-----------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

|     |                                                                                                       |                           |
|-----|-------------------------------------------------------------------------------------------------------|---------------------------|
| 26. | If yes — type of addiction (multiple)<br>यदि हाँ तो व्यसन का प्रकार?<br><i>[Skip unless: [ ]='1']</i> | [ Circle all that apply ] |
|-----|-------------------------------------------------------------------------------------------------------|---------------------------|

1. Alcohol (शराब) | 2. Tobacco (bidi/cigarette/hookah/khaini/naswar) (तम्बाकू (बीड़ी/सिगरेट/हुक्का/खैनी/नसवार)) | 3. Other intoxicants / drugs (अन्य नशीले पदार्थ)

|     |                                                                                                                                       |                |
|-----|---------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 27. | Does any HH member receive social protection scheme benefit?<br>क्या परिवार के किसी सदस्य को सामाजिक संरक्षण योजना का लाभ मिल रहा है? | [ Circle one ] |
|-----|---------------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं) | 3. Do not know (पता नहीं/मालूम नहीं / कह नहीं सकते)

28. Name of social protection schemes (past 1 year, multiple)

[ Circle all that apply ]

सामाजिक संरक्षण योजना का नाम (पिछले एक वर्ष में, एक से अधिक)

[Skip unless: [SP1]='1']

1. Old aged pension (वृद्धावस्था पेंशन योजना) | 2. Widow pension (विधवा पेंशन योजना) | 3. Disability (विकलांगता पेंशन योजना) | 4. Family Assitance Scheme (परिवार सहायता योजना) | 5. Annapurna Scheme (अन्नपूर्णा योजना) | 6. MLBY (मुख्यमंत्री लाइली बहाना योजना) | 7. PMMVY (प्रधानमंत्री मातृत्व योजना (PMMVY)) | 8. MMPSY (मुख्यमंत्री प्रसूति सहायता योजना (MMPSY)) | 9. Student Scholership Scheme (छात्र छात्रवृत्ति योजना) | 10. Kisam Samman Nidhi (किसान सम्मान निधि) | 11. Other (अन्य)

29. Other — specify

[ Write answer ]

अन्य का विवरण लिखें

[Skip unless: if Other selected]

## HOUSEHOLD DEMOGRAPHICS

### परिवार की जनसांख्यिकी

**Enumerator note:** Ask about all people who have been living in this household for the past 3 months and eating from the same pot.

पिछले 3 महीनों से एक ही रसोई में रह रहे एवं खाना खाने वाले सदस्यों की जानकारी दर्ज करें।

## HOUSEHOLD ROSTER — MEMBERS EATING FROM THE SAME POT (LAST 3 MONTHS)

### परिवार की सदस्य सूची

| Age Group / आयु वर्ग            | Male / पुरुष (no.) | Female / स्त्री (no.) |
|---------------------------------|--------------------|-----------------------|
| a. Under 5 years / 5 वर्ष से कम | _____              | _____                 |
| b. 6–10 years / 6–10 वर्ष       | _____              | _____                 |
| c. 11–14 years / 11–14 वर्ष     | _____              | _____                 |
| d. 15–19 years / 15–19 वर्ष     | _____              | _____                 |
| e. 20–49 years / 20–49 वर्ष     | _____              | _____                 |
| f. 50–60 years / 50–60 वर्ष     | _____              | _____                 |
| g. 60+ years / 60+ वर्ष         | _____              | _____                 |
| <b>TOTAL / कुल</b>              | _____              | _____                 |

## MODULE B1: HOUSEHOLD DIETARY DIVERSITY SCORE (HDDS)

### मॉड्यूल B1: घरेलू आहार विविधता स्कोर (HDDS)

**Enumerator note:** Ask the respondent to recall ALL foods eaten by any member of the household during the PREVIOUS 24 HOURS. Include meals eaten inside and outside the home.

उत्तरदाता से कल के 24 घंटों में परिवार के किसी भी सदस्य द्वारा खाए गए सभी खाद्य पदार्थ याद करने को कहें।

### B1: Food groups consumed by household — previous 24 hours

परिवार द्वारा कल 24 घंटों में खाए गए खाद्य समूह

| Q. No. | Food group (English)                                       | खाद्य समूह (हिंदी)                                | Yes / हाँ<br>No / नहीं |
|--------|------------------------------------------------------------|---------------------------------------------------|------------------------|
| 45     | Cereals (wheat/rice/millet/maize/bread/porridge)           | गेहूं / चावल / बाजरा / मक्का / रोटी / दलिया       | ①Yes ②No               |
| 46     | White roots & tubers (potato, sweet potato, cassava)       | आलू / शकरकंद / रतालू / साबूदाना                   | ①Yes ②No               |
| 47     | Vegetables (cabbage, onion, tomato, any green leafy)       | पत्तागोभी / प्याज़ / टमाटर / कोई भी हरी सब्जी/साग | ①Yes ②No               |
| 48     | Fruits (mango, banana, orange, wild fruits)                | आम / केला / संतरा / जंगली फल (जैसे बेल)           | ①Yes ②No               |
| 49     | Meat / poultry / any animal flesh                          | किसी भी प्रकार का मांस / मुर्गी / पक्षी           | ①Yes ②No               |
| 50     | Eggs (any)                                                 | मुर्गी या किसी भी पक्षी के अंडे                   | ①Yes ②No               |
| 51     | Fish / seafood (fresh, dried, canned)                      | ताज़ी / सूखी / डिब्बाबंद मछली या अन्य समुद्री जीव | ①Yes ②No               |
| 52     | Legumes / nuts / seeds (dal, peanuts, cashew, rajma)       | दालें / मूंगफली / सूखे मेवे / राजमा / लोबिया      | ①Yes ②No               |
| 53     | Milk & dairy (fresh milk, curd, paneer, powder)            | दूध / दही / पनीर / मावा / मिल्क पाउडर             | ①Yes ②No               |
| 54     | Oils & fats (cooking oil, ghee, butter, animal fat)        | खाना पकाने का तेल / घी / मक्खन                    | ①Yes ②No               |
| 55     | Sweets & sugars (sweets, sweet drinks, honey, jam)         | मिठाइयाँ / मीठे पेय / शहद / मुरब्बा / जैम         | ①Yes ②No               |
| 56     | Spices, condiments & beverages (tea, coffee, salt, pickle) | मसाले / चाय / कॉफी / नमक / टमाटर सॉस / आचार       | ①Yes ②No               |

**57. Packed snacks purchased (multiple)**

पैकेट बंद/पाउच वाले खाद्य पदार्थ जो परिवार खरीदता है

[ Circle all that apply ]

1. Chips (potato/banana) (चिप्स - आलू/केला) | 2. Kurkure / Tedhe-Medhe / Soya sticks (कुरकुरे / टेढ़ेमेढ़े / सोया स्टिक) | 3. Sev / Mixture (सेव - मिक्सचर) | 4. Cakes (केक) | 5. Crax / Finger snacks (क्रैक्स/फिंगर) | 6. Cakes or similar bakery items (केक या इस जैसे अन्य बेकरी आयटम) | 7. Others (अन्य) | \_\_\_\_ Do not purchase / None (नहीं खरीदते)

**58. How many days per week are snacks purchased?**

सप्ताह में कितने दिन यह पैकेट बंद सामग्री खरीदते हैं?

[Skip unless: if snacks purchased]

[ Circle one ]

1. Daily (रोज़ाना) | 2. 4-5 times a week (हफ़्ते में 4-5 बार) | 3. 2-3 times a week (हफ़्ते में 2-3 बार) | 4. Once a week (हफ़्ते में एक बार)

**59. Average weekly expenditure on snacks (₹)**

सप्ताह में औसत खर्च – पैकेट बंद सामग्री पर (₹)

[Skip unless: if snacks purchased]

[ Number ]

## MODULE B2: WOMEN'S DIETARY DIVERSITY SCORE (WDDS)

### मॉड्यूल B2: महिलाओं का आहार विविधता स्कोर (WDDS)

**Enumerator note:** Ask the PRIMARY FEMALE RESPONDENT (woman of reproductive age, 15–49 years). If no woman of reproductive age is present, SKIP to Module C. Ask what SHE personally ate or drank yesterday during the day and night.

प्रजनन आयु की महिला (15-49 वर्ष) से पूछें। यदि ऐसी कोई महिला उपलब्ध न हो तो मॉड्यूल C पर जाएं।

**60. Is there a woman of reproductive age (15–49 yrs) present and consenting?**

[ Circle one ]

क्या इस घर में प्रजनन आयु (15-49 वर्ष) की कोई महिला उपलब्ध और सहमत है?

1. Yes (हाँ) | 2. No (नहीं)

**61. Name of woman (Optional)**

[ Write answer ]

महिला का नाम (वैकल्पिक)

[Skip unless: [WDDSF]='1']

**62. Age of woman (years)**

[ Number ]

महिला की वास्तविक आयु (वर्ष)

[Skip unless: [WDDSF]='1']

**63. Pregnancy / lactation status**

[ Circle one ]

गर्भावस्था / स्तनपान की स्थिति

[Skip unless: [WDDSF]='1']

1. Currently pregnant (गर्भवति) | 2. Lactating (धायी) | 3. Neither pregnant nor lactating (न गर्भवति न धायी)

### B2: Foods consumed by the woman — previous 24 hours

महिला द्वारा कल 24 घंटों में खाए गए खाद्य समूह

| Q. No. | Food group (English)                                        | खाद्य समूह (हिंदी)                               | Yes / हाँ<br>No / नहीं |
|--------|-------------------------------------------------------------|--------------------------------------------------|------------------------|
| 64     | Grains, white roots & tubers (bread, rice, chapati, potato) | ब्रेड / चपाती / चावल / आलू / सफेद शकरकंद         | ①Yes ②No               |
| 65     | Pulses (beans, peas, lentils, soyabean)                     | दाल / फलियाँ / राजमा / मटर / चना / सोयाबीन       | ①Yes ②No               |
| 66     | Nuts & seeds (peanuts, cashew, pumpkin seeds)               | मूँगफली / काजू / बादाम / कद्दू के बीज / सूरजमुखी | ①Yes ②No               |

|    |                                                                |                                                           |          |
|----|----------------------------------------------------------------|-----------------------------------------------------------|----------|
| 67 | Dairy — milk, curd, cheese, yoghurt (not butter/cream)         | दूध / दही / पनीर / चीज़ (मक्खन या क्रीम नहीं)             | ①Yes ②No |
| 68 | Meat, poultry, fish (any flesh food)                           | माँस / चिकन / मछली / किसी भी प्रकार का माँस               | ①Yes ②No |
| 69 | Eggs (any)                                                     | मुर्गी या किसी भी पक्षी के अंडे                           | ①Yes ②No |
| 70 | Dark green leafy vegetables (spinach, fenugreek, drumstick)    | पालक / मेथी / सहजन / चौलाई / सरसों के पत्ते               | ①Yes ②No |
| 71 | Other vitamin-A rich vegetables & fruits (orange/yellow flesh) | कद्दू / गाजर / पीले शकरकंद / लाल शिमला मिर्च / पपीता / आम | ①Yes ②No |
| 72 | Other vegetables (cabbage, brinjal, tomato, okra)              | पत्तागोभी / बैंगन / टमाटर / प्याज़ / भिंडी / खीरा         | ①Yes ②No |
| 73 | Other fruits (orange, banana, guava, apple, grapes)            | संतरा / केला / अमरूद / सेब / अंगूर / नींबू                | ①Yes ②No |

**73a. Does the woman use any substance / addiction?**

[ Circle one ]

क्या आप किसी तरह का व्यसन करती हैं?

1. Yes (हाँ) | 2. No (नहीं)

**If yes — type of addiction (multiple)**

[ Circle all that apply ]

यदि हाँ तो व्यसन का प्रकार?

[Skip unless: [B2\_10\_002]='1']

1. Alcohol (शराब) | 2. Tobacco (bidi/cigarette/hookah/khaini/naswar) (तम्बाकू (बीड़ी/सिगरेट/हुक्का/खैनी/नसवार))  
3. Other intoxicants / drugs (अन्य नशीले पदार्थ)

### MODULE B3: CHILD MINIMUM ACCEPTABLE DIET (MAD) — 6–23 MONTHS

मॉड्यूल B3: बच्चों का न्यूनतम स्वीकार्य आहार (MAD) – 6-23 माह

**Enumerator note:** Reference period: yesterday (day & night). Ask open recall first, then classify into food groups.

संदर्भ अवधि: कल (दिन और रात)। पहले मुक्त रूप से याद करवाएं, फिर खाद्य समूहों में वर्गीकृत करें।

**74. Is there a child aged 6–23 months in this household?**

[ Circle one ]

क्या इस घर में 6-23 महीने के बीच का कोई बच्चा है?

1. Yes (हाँ) | 0. No (नहीं)

**75. Child's name (Optional)**

[ Write answer ]

बच्चे का नाम (वैकल्पिक)

[Skip unless: [B3\_0b]='1']

**76. Child's date of birth**

[ Date (DD/MM/YYYY) ]

बच्चे की जन्मतिथि

[Skip unless: [B3\_0b]='1']

77.

**Child's sex**

बच्चे का लिंग

[Skip unless: [B3\_0b]='1']

[ Circle one ]

1. Male (पुरुष) | 2. Female (स्त्री) | 3. Other (अन्य)

### B3: Child's food intake yesterday (6–23 months)

B3: बच्चे का कल का आहार (6-23 माह)

| Q. No. | Food group (English)                                    | खाद्य समूह (हिंदी)                                                                                                                                                | Yes / हाँ<br>No / नहीं |
|--------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
|        | Is the mother still breastfeeding the child?            | 82. क्या माता अब भी बच्चे को स्तनपान करा रही हैं?                                                                                                                 | ①Yes ②No               |
|        | Yesterday, did the child receive breast milk (group 1)? | 83. कल दिन या रात में, क्या बच्चे ने माँ का दूध पिया – चाहे सीधे स्तन से या निकालकर (कटोरी/चम्मच से)?<br>[खाद्य समूह 1]                                           | ①Yes ②No               |
|        | Group 2 — grains, roots & tubers                        | 84. समूह 2 – अनाज, जड़ें एवं कंद: चावल, रोटी, पराठा, ब्रेड, दलिया, सूजी, पोहा, खिचड़ी; ज्वार/बाजरा/मक्का; आलू, अरबी, सफेद शकरकंद; आँगनवाड़ी दलिया/पंजीरी, सेरेलैक | ①Yes ②No               |
|        | Group 3 — pulses, nuts & seeds                          | 85. समूह 3 – दालें, मेवे एवं बीज: दाल, राजमा, छोले, लोबिया, बड़ी; मूंगफली, तिल, बादाम, काजू। [हरी मटर/फली समूह 8 में]                                             | ①Yes ②No               |
|        | Group 4 — dairy                                         | 86. समूह 4 – डेयरी उत्पाद: पशु का दूध, शिशु फॉर्मूला, दही/लस्सी/छाछ, पनीर, चीज़, खीर।                                                                             | ①Yes ②No               |
|        | Group 5 — flesh foods                                   | 87. समूह 5 – माँसाहार: मुर्गा/चिकन, बकरी/भेड़ का माँस, मछली, झींगा, केकड़ा, कलेजी व अन्य अंग-माँस                                                                 | ①Yes ②No               |
|        | Group 6 — eggs                                          | 88. समूह 6 – अंडा: किसी भी रूप में अंडा                                                                                                                           | ①Yes ②No               |
|        | Group 7 — vitamin-A-rich fruits & vegetables            | 89. समूह 7 – विटामिन ए युक्त फल एवं सब्जियाँ: कद्दू, गाजर, नारंगी शकरकंद; हरी पत्तेदार सब्जी; पका आम, पपीता                                                       | ①Yes ②No               |
|        | Group 8 — other fruits & vegetables                     | 90. समूह 8 – अन्य फल एवं सब्जियाँ: टमाटर, बैंगन, भिंडी, लौकी, गोभी, प्याज़, हरी मटर, हरी फली, खीरा; केला, सेब, अमरुद, संतरा, अंगूर, तरबूज                         | ①Yes ②No               |

**Breastfeeding — was child breastfed in the past 24 hours?**

क्या पिछले 24 घंटों में बच्चे को स्तनपान कराया गया?

[Skip unless: [B3\_0b]='1']

[ Circle one ]

1. Yes (हाँ) | 2. No (नहीं)

|                                                                                                           |                |
|-----------------------------------------------------------------------------------------------------------|----------------|
| <b>Minimum Meal Frequency met?</b><br>न्यूनतम भोजन आवृत्ति पूरी हुई?<br><i>[Skip unless: [B3_0b]='1']</i> | [ Circle one ] |
|-----------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

## MODULE C: HOUSEHOLD FOOD INSECURITY ACCESS SCALE (HFIAS)

मॉड्यूल C: घरेलू खाद्य असुरक्षा पहुँच मापदंड (HFIAS)

**Enumerator note:** Ask about experiences in the PAST 30 DAYS. For each experience coded 'Yes', follow up with frequency question.

पिछले 30 दिनों के बारे में पूछें। प्रत्येक 'हाँ' उत्तर के लिए आवृत्ति प्रश्न पूछें।

|                                                                                                                                                                                   |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>In the past 4 weeks, did you worry that your household would not have enough food?</b><br>क्या पिछले 4 सप्ताहों में, कभी आपको चिंता थी कि आपके घर में पर्याप्त खाना नहीं होगा? | [ Circle one ] |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

|                                                                                                  |                |
|--------------------------------------------------------------------------------------------------|----------------|
| <b>How often did this happen in the past 4 weeks?</b><br>पिछले 4 सप्ताहों में ऐसा कितनी बार हुआ? | [ Circle one ] |
|--------------------------------------------------------------------------------------------------|----------------|

1. Rarely (1–2 times) (कभी-कभी (1-2 बार)) | 2. Sometimes (3–10 times) (कभी-कभार (3-10 बार)) | 3. Often (>10 times) (अक्सर (>10 बार))

|                                                                                                                                                                                                                                                                           |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>In the past 4 weeks, were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?</b><br>क्या पिछले 4 सप्ताहों में, कभी आप या आपके घर का कोई सदस्य संसाधनों की कमी के कारण अपनी पसंद के खाद्य पदार्थ नहीं खा सका? | [ Circle one ] |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

|                                                                                                  |                |
|--------------------------------------------------------------------------------------------------|----------------|
| <b>How often did this happen in the past 4 weeks?</b><br>पिछले 4 सप्ताहों में ऐसा कितनी बार हुआ? | [ Circle one ] |
|--------------------------------------------------------------------------------------------------|----------------|

1. Rarely (1–2 times) (कभी-कभी (1-2 बार)) | 2. Sometimes (3–10 times) (कभी-कभार (3-10 बार)) | 3. Often (>10 times) (अक्सर (>10 बार))

|                                                                                                                                                                                                                                                       |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>In the past 4 weeks, did you or any household member have to eat a limited variety of foods due to a lack of resources?</b><br>क्या पिछले 4 सप्ताहों में, आपको या आपके घर के किसी सदस्य को संसाधनों की कमी के कारण सीमित प्रकार का भोजन खाना पड़ा? | [ Circle one ] |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

**How often did this happen in the past 4 weeks?**

पिछले 4 सप्ताहों में ऐसा कितनी बार हुआ?

[ Circle one ]

1. Rarely (1–2 times) (कभी-कभी (1-2 बार)) | 2. Sometimes (3–10 times) (कभी-कभार (3-10 बार)) | 3. Often (>10 times) (अक्सर (>10 बार))

**In the past 4 weeks, did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other foods?**

क्या पिछले 4 सप्ताहों में, आपको या आपके घर के किसी सदस्य को अन्य खाद्य पदार्थ प्राप्त करने के लिए संसाधनों की कमी के कारण ऐसे खाद्य पदार्थ खाने पड़े जो आप वास्तव में नहीं खाना चाहते थे?

[ Circle one ]

1. Yes (हाँ) | 2. No (नहीं)

**How often did this happen in the past 4 weeks?**

पिछले 4 सप्ताहों में ऐसा कितनी बार हुआ?

[ Circle one ]

1. Rarely (1–2 times) (कभी-कभी (1-2 बार)) | 2. Sometimes (3–10 times) (कभी-कभार (3-10 बार)) | 3. Often (>10 times) (अक्सर (>10 बार))

**In the past 4 weeks, did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?**

क्या पिछले 4 सप्ताहों में, आपको या आपके घर के किसी सदस्य को पर्याप्त भोजन न होने के कारण जितना खाना आवश्यक था उससे कम खाना पड़ा?

[ Circle one ]

1. Yes (हाँ) | 2. No (नहीं)

**How often did this happen in the past 4 weeks?**

पिछले 4 सप्ताहों में ऐसा कितनी बार हुआ?

[ Circle one ]

1. Rarely (1–2 times) (कभी-कभी (1-2 बार)) | 2. Sometimes (3–10 times) (कभी-कभार (3-10 बार)) | 3. Often (>10 times) (अक्सर (>10 बार))

**In the past 4 weeks, did you or any household member have to eat fewer meals in a day because there was not enough food?**

क्या पिछले 4 सप्ताहों में, आपको या आपके घर के किसी सदस्य को पर्याप्त भोजन न होने के कारण दिन में कम भोजन करना पड़ा?

[ Circle one ]

1. Yes (हाँ) | 2. No (नहीं)

|                                                                                                  |                |
|--------------------------------------------------------------------------------------------------|----------------|
| <b>How often did this happen in the past 4 weeks?</b><br>पिछले 4 सप्ताहों में ऐसा कितनी बार हुआ? | [ Circle one ] |
|--------------------------------------------------------------------------------------------------|----------------|

1. Rarely (1–2 times) (कभी-कभी (1-2 बार)) | 2. Sometimes (3–10 times) (कभी-कभार (3-10 बार)) | 3. Often (>10 times) (अक्सर (>10 बार))

|                                                                                                                                                                                                                                                                             |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>In the past 4 weeks, was there ever no food to eat of any kind in your household because of lack of resources to get food?</b><br>क्या पिछले 4 सप्ताहों में, कभी ऐसा हुआ कि भोजन प्राप्त करने के लिए संसाधनों की कमी के कारण आपके घर में किसी भी प्रकार का खाना नहीं था? | [ Circle one ] |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

|                                                                                                  |                |
|--------------------------------------------------------------------------------------------------|----------------|
| <b>How often did this happen in the past 4 weeks?</b><br>पिछले 4 सप्ताहों में ऐसा कितनी बार हुआ? | [ Circle one ] |
|--------------------------------------------------------------------------------------------------|----------------|

1. Rarely (1–2 times) (कभी-कभी (1-2 बार)) | 2. Sometimes (3–10 times) (कभी-कभार (3-10 बार)) | 3. Often (>10 times) (अक्सर (>10 बार))

|                                                                                                                                                                                                                             |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>In the past 4 weeks, did you or any household member go to sleep at night hungry because there was not enough food?</b><br>क्या पिछले 4 सप्ताहों में, आप या आपके घर का कोई सदस्य पर्याप्त भोजन न होने के कारण भूखे सोया? | [ Circle one ] |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

|                                                                                                  |                |
|--------------------------------------------------------------------------------------------------|----------------|
| <b>How often did this happen in the past 4 weeks?</b><br>पिछले 4 सप्ताहों में ऐसा कितनी बार हुआ? | [ Circle one ] |
|--------------------------------------------------------------------------------------------------|----------------|

1. Rarely (1–2 times) (कभी-कभी (1-2 बार)) | 2. Sometimes (3–10 times) (कभी-कभार (3-10 बार)) | 3. Often (>10 times) (अक्सर (>10 बार))

|                                                                                                                                                                                                                                                                      |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>In the past 4 weeks, did you or any household member go a whole day and night without eating anything because there was not enough food?</b><br>क्या पिछले 4 सप्ताहों में, आप या आपके घर का कोई सदस्य पर्याप्त भोजन न होने के कारण पूरे दिन-रात बिना कुछ खाए रहा? | [ Circle one ] |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

|                                                                                                  |                |
|--------------------------------------------------------------------------------------------------|----------------|
| <b>How often did this happen in the past 4 weeks?</b><br>पिछले 4 सप्ताहों में ऐसा कितनी बार हुआ? | [ Circle one ] |
|--------------------------------------------------------------------------------------------------|----------------|

1. Rarely (1–2 times) (कभी-कभी (1-2 बार)) | 2. Sometimes (3–10 times) (कभी-कभार (3-10 बार)) | 3. Often (>10 times) (अक्सर (>10 बार))

In the past 30 days, how many days did any member of your household go a whole day and night without eating anything at all?

पिछले 30 दिनों में, आपके घर के किसी सदस्य ने कितने दिन पूरे दिन और रात बिना कुछ खाए गुज़ारे?

[ Number ]

## MODULE G: WATER SOURCES AND ACCESS

मॉड्यूल G: जल स्रोत एवं पहुँच

Main drinking water source

मुख्य पेयजल स्रोत

[ Circle one ]

bottled. Bottled Water (बोतलबंद पानी) | piped. Piped water self/Neighbour (घर में नल का पानी (स्वयं/पड़ोसी)) | public\_tap. Public tap/Standpipe (सार्वजनिक नल/स्टैंडपाइप) | tube\_well. Tube Well (ट्यूबवेल) | hand\_pump. Hand Pump (हैंड पंप) | well\_protected. Well Protected (सुरक्षित कुआँ (ढका हुआ उपचारित)) | well\_unprotected. Well Unprotected (असुरक्षित कुआँ) | tanker. Tanker-truck public/private (टैंकर (सार्वजनिक/निजी)) | spring\_protected. Spring Protected (सुरक्षित झरना) | spring\_unprotected. Spring Unprotected (असुरक्षित झरना) | surface. Surface water: tank/pond (सतही पानी: तालाब/ताल) | other\_surface. Other surface water (river, dam, etc.) (अन्य सतही पानी (नदी, बांध आदि)) | NA. Not Applicable (परिवार का एक ही स्रोत है इसलिए लागू नहीं)

Water availability

जल की उपलब्धता

[ Circle one ]

1. Year round (वर्षभर) | 2. Seasonal (मौसमी) | 3. Unreliable (अनिश्चित) | 99. DK (पता नहीं)

Distance to water source

जल स्रोत की दूरी

[ Circle one ]

1. <30m (<30 मीटर) | 2. <500m (<500 मीटर) | 3. 500m-1km (500 मीटर-1 किमी) | 4. 1-2km (1-2 किमी) | 5. >2km (>2 किमी) | 99. DK (पता नहीं)

Alternative drinking water sources (multiple)

वैकल्पिक पेयजल स्रोत (एक से अधिक)

[ Circle all that apply ]

bottled. Bottled Water (बोतलबंद पानी) | piped. Piped water self/Neighbour (घर में नल का पानी (स्वयं/पड़ोसी)) | public\_tap. Public tap/Standpipe (सार्वजनिक नल/स्टैंडपाइप) | tube\_well. Tube Well (ट्यूबवेल) | hand\_pump. Hand Pump (हैंड पंप) | well\_protected. Well Protected (सुरक्षित कुआँ (ढका हुआ उपचारित)) | well\_unprotected. Well Unprotected (असुरक्षित कुआँ) | tanker. Tanker-truck public/private (टैंकर (सार्वजनिक/निजी)) | spring\_protected. Spring Protected (सुरक्षित झरना) | spring\_unprotected. Spring Unprotected (असुरक्षित झरना)

Unprotected (असुरक्षित झरना) | surface. Surface water: tank/pond (सतही पानी: तालाब/ताल) | other\_surface. Other surface water (river, dam, etc.) (अन्य सतही पानी (नदी, बांध आदि)) | NA. Not Applicable (परिवार का एक ही स्रोत है इसलिए लागू नहीं)

## MODULE H: CLIMATE-SMART AGRICULTURE PRACTICES

### मॉड्यूल H: जलवायु अनुकूल कृषि पद्धतियाँ

**Enumerator note:** Ask about practices used by the household in current or last agricultural season.

वर्तमान या पिछले कृषि मौसम में उपयोग की गई पद्धतियों के बारे में पूछें।

|                                                                                             |                |
|---------------------------------------------------------------------------------------------|----------------|
| <p><b>Do your family do agriculture</b></p> <p>क्या आपके परिवार द्वारा खेती की जाती है?</p> | [ Circle one ] |
|---------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

|                                                                                                                                      |                |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <p><b>Does your household practice mulching?</b></p> <p>क्या आपके परिवार द्वारा खेती में मल्लिचिंग (अच्छादन/ढांक कर) की जाती है?</p> | [ Circle one ] |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

|                                                                                                                                   |                |
|-----------------------------------------------------------------------------------------------------------------------------------|----------------|
| <p><b>Does your household practice crop rotation?</b></p> <p>क्या आपके परिवार द्वारा फसल चक्र (crop rotation) अपनाया जाता है?</p> | [ Circle one ] |
|-----------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

|                                                                                                                                                     |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <p><b>Does your household practice rainwater harvesting?</b></p> <p>क्या आपके परिवार द्वारा वर्षा जल संचयन (rainwater harvesting) किया जाता है?</p> | [ Circle one ] |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

|                                                                                                                          |                |
|--------------------------------------------------------------------------------------------------------------------------|----------------|
| <p><b>Does your household use organic manure?</b></p> <p>क्या आपके परिवार द्वारा जैविक खाद का इस्तेमाल किया जाता है?</p> | [ Circle one ] |
|--------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं) | 3. Do not know (पता नहीं/मालूम नहीं / कह नहीं सकते)

|                                                                                                                                 |                |
|---------------------------------------------------------------------------------------------------------------------------------|----------------|
| <p><b>Does your household use organic pesticide?</b></p> <p>क्या आपके परिवार द्वारा जैविक कीटनाशक का इस्तेमाल किया जाता है?</p> | [ Circle one ] |
|---------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं) | 3. Do not know (पता नहीं/मालूम नहीं / कह नहीं सकते)

|                                                                                                                     |                |
|---------------------------------------------------------------------------------------------------------------------|----------------|
| <p><b>If yes - which types of bio-pesticides are used (multiple)</b></p> <p>जैविक टॉनिक का उपयोग किया जाता है ?</p> | [ Circle one ] |
|---------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं) | 3. Do not know (पता नहीं/मालूम नहीं / कह नहीं सकते)

**Does your household practice minimum tillage?**

[ Circle one ]

क्या आपके परिवार द्वारा खेती में कम से कम गहरी जुताई (minimum tillage) की विधि जाती है?

1. Yes (हाँ) | 2. No (नहीं)

**Does your household practice Intercropping?**

[ Circle one ]

क्या आपके परिवार द्वारा मिश्रित खेती (intercropping) की जाती है?

1. Yes (हाँ) | 2. No (नहीं)

**Does your household grow small grains?**

[ Circle one ]

क्या आपके परिवार द्वारा बारीक /छो(कोदो/कुटकी/बाजरा/सावा/कंगनी आदि) टे किस्म के अनाज उगाए जाते हैं?

1. Yes (हाँ) | 2. No (नहीं)

**Is your household using a Raised Bed Bucket System (RBBS)?**

[ Circle one ]

क्या आपका परिवार द्वारा 'रेज्ड बेड बकेट सिस्टम' (RBBS) का इस्तेमाल कर रहा है?

1. Yes (हाँ) | 2. No (नहीं)

**If yes - which types of bio-fertilizers are used (multiple)**

[ Circle all that apply ]

अगर हाँ - तो किस तरह के जैविक खाद का उपयोग किया जाता है ?

1. Pit manure (गड्ढे वाली खाद) | 2. Pure cow dung (Biogas slurry) (शुद्ध गोबर (बायोगैस स्लरी)) | 3. Vermicompost (वर्मिकम्पोस्ट) | 4. NADEP compost / Bio-fertilizer (more than one) (NADEP कम्पोस्ट / बायो-फर्टिलाइज़र (एक से) | 5. Green manure (हरी खाद) | 6. Other (अन्य)

**If yes - which types of bio-pesticides are used (multiple)**

[ Circle all that apply ]

अगर हाँ - तो किस तरह के जैविक कीटनाशक का उपयोग किया जाता है ?

1. Neem Ark (नीम का अर्क) | 2. Dasparni Ark (दसपर्णी अर्क) | 3. Other (अन्य)

**If yes - which types of bio-pesticides are used (multiple)**

[ Circle all that apply ]

अगर हाँ - तो किस तरह के जैविक टॉनिक का उपयोग किया जाता है ?

1. Jeevamrut (जीवा-अमृत) | 2. Ghan Jeeva (घन जीवा) | 3. Cow dung solution (Kanda Pani) (कंडा पानी) | 4. Other (अन्य)

## MODULE J: GENDER AND DECISION-MAKING

### मॉड्यूल J: लिंग एवं निर्णय-क्षमता

|                                                                                                                                 |                |
|---------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Who in the household makes decisions regarding use of household income?</b><br>घर में आय के उपयोग संबंधी निर्णय कौन लेता है? | [ Circle one ] |
|---------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Male (पुरुष) | 2. Female (महिला) | 3. Joint decision (संयुक्त निर्णय) | 4. Other (अन्य)

|                                                                                               |                |
|-----------------------------------------------------------------------------------------------|----------------|
| <b>Who decides on major household purchases?</b><br>घर की बड़ी खरीदारी का निर्णय कौन लेता है? | [ Circle one ] |
|-----------------------------------------------------------------------------------------------|----------------|

1. Male (पुरुष) | 2. Female (महिला) | 3. Joint decision (संयुक्त निर्णय) | 4. Other (अन्य)

|                                                                                                                        |                |
|------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Who decides on children education and welfare?</b><br>बच्चों की शिक्षा और उनके बेहतरी/कल्याण का निर्णय कौन लेता है? | [ Circle one ] |
|------------------------------------------------------------------------------------------------------------------------|----------------|

1. Male (पुरुष) | 2. Female (महिला) | 3. Joint decision (संयुक्त निर्णय) | 4. Other (अन्य)

|                                                                                                                                                                             |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Are you aware of gender-based violence (GBV) support services in your area?</b><br>क्या आप अपने क्षेत्र में लिंग-आधारित हिंसा (GBV) सहायता सेवाओं के बारे में जानते हैं? | [ Circle one ] |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

|                                                                                                                       |                |
|-----------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Can the child name at least two fundamental child rights?</b><br>क्या इस परिवार में 12 से 18 वर्ष का कोई बच्चा है? | [ Circle one ] |
|-----------------------------------------------------------------------------------------------------------------------|----------------|

1. Yes (हाँ) | 2. No (नहीं)

|                                                                                                                                                                                     |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>140a. If yes, can the child aged 12–18 years name at least two fundamental child rights?</b><br>यदि हाँ तो क्या 12 से 18 वर्ष का बच्चा कम से कम दो मौलिक बाल अधिकार बता सकता है? | [ Circle one ] |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|

\_\_\_ Yes (हाँ) | \_\_\_ 1. No (नहीं) | \_\_\_\_\_. No child available for interview (कोई भी बच्चा साक्षात्कार के लिए उपलब्ध न)

|                                                                                                                                         |                           |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| <b>Child Rights known (multiple)</b><br>बच्चे के अधिकार जो आप जानते हैं (एक से अधिक)<br><i>[Skip unless: if child rights known=Yes]</i> | [ Circle all that apply ] |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------|

**1. 1. Right to Survival (for every child):** (1. जीवन एवं अस्तित्व का अधिकार (Right to) | **2. Right to birth** (जन्म का अधिकार) | **3. Right to nutritious food** (पोषित भोजन का अधिकार) | **4. Right to clean water** (स्वच्छ पानी का अधिकार) | **5. Right to healthcare services** (स्वास्थ्य सेवाओं का अधिकार) | **6. Right to a safe life** (सुरक्षित जीवन जीने का अधिकार) | **7. 2. Right to Development (for every child):** (2. विकास का अधिकार (Right to Development) | **8. Right to quality education** (गुणवत्तापूर्ण शिक्षा का अधिकार) | **9. Right to play and recreation** (खेल एवं मनोरंजन का अधिकार) | **10. Opportunity to learn and develop one's talents** (सीखने और अपनी प्रतिभा विकसित करने का अवसर) | **11. A loving and caring family environment** (प्यार और देखभाल वाला पारिवारिक वातावरण) | **12. 3. Right to Protection (every child is entitled to** (3. सुरक्षा का अधिकार (Right to Protectio) | **13. From child labour** (बाल श्रम से) | **14. From child marriage** (बाल विवाह से) | **15. From violence and exploitation** (हिंसा एवं शोषण से) | **16. From trafficking** (तस्करी से) | **17. From neglect and abuse** (उपेक्षा और दुर्व्यवहार से) | **18. 4. Right to Participation (every child has the rig** (4. सहभागिता का अधिकार (Right to Particip) | **19. To speak up** (अपनी बात रखने का) | **20. To express their opinion** (अपनी राय व्यक्त करने का) | **21. To be heard in decisions appropriate for their age** (अपनी आयु के अनुसार निर्णयों में सुने जाने का) | **22. To access information** (जानकारी प्राप्त करने का)

## MODULE K: INCOME, LIVELIHOODS AND MIGRATION

मॉड्यूल K: आय, आजीविका एवं पलायन

**143. How many sources of income does your household have?**

आपके परिवार की आय के कितने स्रोत हैं?

[ Circle one ]

1. [1] Only one ([1] केवल एक) | 2. [2] Two ([2] दो) | 3. [3] Three or more ([3] तीन या अधिक)

**144. Primary source of income**

आय का प्राथमिक स्रोत

[ Circle one ]

**agriculture. Agriculture** (खेती (स्वयं की या अन्य/किराये /पट्टे की ) | **livestock. Livestock / dairy / poultry** (पशुपालन / डेयरी / मुर्गीपालन/ अन्य कृषि ) | **agri\_wage. Agricultural daily wage labour** (कृषि दिहाड़ी मजदूरी) | **nonfarm\_wage. Non-farm wage labour MGNREGA / public works** (गैर-कृषि मजदूरी / मनरेगा / सार्वजनिक कार) | **small\_shop. Small shop / business** (छोटी दुकान / व्यवसाय) | **handicraft. Handicrafts / artisan** (हस्तशिल्प / कारीगरी) | **forest\_ntfp. Forest produce / NTFP** (वन उत्पाद / एनटीएफपी) | **fishing. Fishing / aquaculture** (मछली पालन / जलकृषि) | **pension. Government pension / schemes** (सरकारी पेंशन / योजनाएं) | **salaried1. Regular salaried job -govt.** (नियमित सरकारी नौकरी) | **salaried2. Regular salaried job -private** (नियमित प्राइवेट नौकरी) | **self-employed. Self-employed (Services)** (स्वरोजगार (सेवाएं) (वकील, ड्राइवर, मैकेन) | **Fire\_wood\_selling. Fire wood selling** (जलाऊ लकड़ी बेचना) | **other. Other (specify)** (अन्य) | **NA. NA** (लागू नहीं)

**144a. Other — please specify**

अन्य (विवरण दें)

[Skip unless: if Other selected]

[ Write answer ]

**145. Secondary source of income**

आय का द्वितीयक स्रोत

[ Circle one ]

**agriculture. Agriculture** (खेती (स्वयं की या अन्य/किराये /पट्टे की ) | **livestock. Livestock / dairy / poultry** (पशुपालन / डेयरी / मुर्गीपालन/ अन्य कृषि ) | **agri\_wage. Agricultural daily wage labour** (कृषि दिहाड़ी मजदूरी) | **nonfarm\_wage. Non-farm wage labour MGNREGA / public works** (गैर-कृषि मजदूरी / मनरेगा / सार्वजनिक कार) | **small\_shop. Small shop / business** (छोटी दुकान / व्यवसाय) | **handicraft. Handicrafts / artisan** (हस्तशिल्प / कारीगरी) | **forest\_ntfp. Forest produce / NTFP** (वन उत्पाद / एनटीएफपी) | **fishing. Fishing / aquaculture** (मछली पालन / जलकृषि) | **pension. Government pension / schemes** (सरकारी पेंशन / योजनाएं) | **salaried1. Regular salaried job -govt.** (नियमित सरकारी नौकरी) | **salaried2. Regular salaried job -private** (नियमित प्राइवेट नौकरी) | **self-employed. Self-employed (Services)** (स्वरोजगार (सेवाएं) (वकील, ड्राइवर, मैकेन) | **Fire\_wood\_selling. Fire wood selling** (जलाऊ लकड़ी बेचना) | **other. Other (specify)** (अन्य) | **NA. NA** (लागू नहीं)

**146. Other — please give details**

अन्य – कृपया विवरण दें

*[Skip unless: if Other selected]*

[ Write answer ]

**147. Other sources of income (multiple)**

अन्य आय स्रोत (एक से अधिक)

[ Circle all that apply ]

**agriculture. Agriculture** (खेती (स्वयं की या अन्य/किराये /पट्टे की ) | **livestock. Livestock / dairy / poultry** (पशुपालन / डेयरी / मुर्गीपालन/ अन्य कृषि ) | **agri\_wage. Agricultural daily wage labour** (कृषि दिहाड़ी मजदूरी) | **nonfarm\_wage. Non-farm wage labour MGNREGA / public works** (गैर-कृषि मजदूरी / मनरेगा / सार्वजनिक कार) | **small\_shop. Small shop / business** (छोटी दुकान / व्यवसाय) | **handicraft. Handicrafts / artisan** (हस्तशिल्प / कारीगरी) | **forest\_ntfp. Forest produce / NTFP** (वन उत्पाद / एनटीएफपी) | **fishing. Fishing / aquaculture** (मछली पालन / जलकृषि) | **pension. Government pension / schemes** (सरकारी पेंशन / योजनाएं) | **salaried1. Regular salaried job -govt.** (नियमित सरकारी नौकरी) | **salaried2. Regular salaried job -private** (नियमित प्राइवेट नौकरी) | **self-employed. Self-employed (Services)** (स्वरोजगार (सेवाएं) (वकील, ड्राइवर, मैकेन) | **Fire\_wood\_selling. Fire wood selling** (जलाऊ लकड़ी बेचना) | **other. Other (specify)** (अन्य) | **NA. NA** (लागू नहीं)

**148. Other — please describe**

अन्य – विवरण लिखें

*[Skip unless: if Other selected]*

[ Write answer ]

**149. Migration — does any HH member migrate for work?**

पलायन – क्या कोई सदस्य काम के लिए बाहर जाता है?

[ Circle one ]

1. Yes (हाँ) | 2. No (नहीं)

**150. Migration destination (multiple)**

पलायन गंतव्य (एक से अधिक)

*[Skip unless: if Migration=Yes]*

[ Circle all that apply ]

1. In another village or town within the same district (इसी जिले के किसी अन्य गाँव या शहर में (अ) | 2. In another district/city within the state (inter-district) (राज्य के किसी दूसरे जिले/शहर में (अंतर-ज) | 3. In another state (inter-state, e.g., Gujarat, Maharashtra) (दूसरे राज्य में (अंतर-राज्यीय जैसे: गुजरात)

151. Migration duration (multiple)

पलायन की अवधि (एक से अधिक)

[ Circle all that apply ]

[Skip unless: if Migration=Yes]

1. अर्ध-स्थायी - वर्ष में अधिकांश समय बाहर रहते हैं और (अर्ध-स्थायी - वर्ष में अधिकांश समय बाहर ) | 2. मौसमी - साल में कुछ महीनों के लिए जाते हैं और वापस (मौसमी - साल में कुछ महीनों के लिए जाते ह) | 3. चक्रीय- महीने में कुछ हफ्तों के लिए जाते हैं और वा (चक्रीय- महीने में कुछ हफ्तों के लिए जाते)

152. Does the household receive remittances?

क्या परिवार को रেমिटेंस/पैसे भेजे जाते हैं?

[ Circle one ]

[Skip unless: if Migration=Yes]

1. Yes (हाँ) | 2. No (नहीं)

153. Do you have a kitchen garden providing regular fruits/vegetables?

क्या आपके पास पोषण वाटिका है जिससे नियमित फल/सब्जी मिलती है?

[ Circle one ]

1. Yes (हाँ) | 2. No (नहीं)

154. Primary water source for the kitchen garden?

पोषण वाटिका के लिए पानी का मुख्य स्रोत?

[ Circle one ]

[Skip unless: if Kitchen Garden=Yes]

1. [1] Solar Borehole (बोरवेल) | 2. [2] Hand Pump (हैंड पंप) | 3. [3] River/Stream (नदी/नाला) | 4. [4] Rain-fed only (केवल वर्षा पर निर्भर) | 5. Piped Water/Stand Post (नल/स्टैंडपाइप) | 6. Well (कुआँ) | 7. Waste water (excluding gray water) (घर से निकला हुआ पानी (शौचालय को छोड़कर))

## MODULE 2: ANTHROPOMETRY — CHILD (0–59 MONTHS) & WOMAN (15–49 YEARS)

मॉड्यूल 2: मानवमिति – बच्चे (0-59 माह) और महिला (15-49 वर्ष)

**Enumerator note:** Complete for ALL children 0–59 months and the primary woman 15–49 years. Use calibrated weighing scale and length/height board. Record all measurements to 0.1 precision.

0-59 माह के सभी बच्चों और 15-49 वर्ष की महिला के लिए माप लें। अंशांकित उपकरण का उपयोग करें।

155. Is there any child aged 0–59 months in this household?

क्या इस घर में 0-59 माह का कोई बच्चा है?

[ Circle one ]

1. Yes (हाँ) | 2. No (नहीं)

## CHILD ANTHROPOMETRY RECORD (repeat for each child)

| Child # | Name | Sex   | Date of Birth | Weight (kg) | Height/Length (cm) |
|---------|------|-------|---------------|-------------|--------------------|
| 1       |      | M / F | __/__/____    | __._ kg     | __._ cm            |
| 2       |      | M / F | __/__/____    | __._ kg     | __._ cm            |
| 3       |      | M / F | __/__/____    | __._ kg     | __._ cm            |

#### WOMEN'S ANTHROPOMETRY & HAEMOGLOBIN RECORD

| Name | Age (yrs) | Preg/Lact Status | Weight (kg) | Height (cm) | Hb (g/dL) |
|------|-----------|------------------|-------------|-------------|-----------|
|      |           |                  | __._ kg     | __._ cm     | __._      |

#### END OF QUESTIONNAIRE

प्रश्नावली समाप्त

Thank you very much for your time and cooperation. |  
आपके समय और सहयोग के लिए बहुत-बहुत धन्यवाद।