



**PLA training module for CRP, CLF and SAC members of ASRLM
On
Sensitizing women on Food Nutrition Health and WASH (FNHW)**



**Developed and supported by:
ASRLM, UNICEF and ROSHNI**

Declaration:

The information given in this module are specifically meant for conveying all the Community Resource Persons (CRP), selected members from Cluster Level Federation (CLF) and Social Action Committee (SAC) and other participants. Any part of this module cannot be treated as a lawful legal document and any action cannot be taken on this basis. This module is being published only to convey the ongoing programs and FNHW operational strategy of ASRLM. Content developed in this module is based on State FNHW indicators.

FOREWORD

Nutrition for children begins much before birth, in the womb. Evidence shows us that the first 1000 days extending from conception to a child's second birthday are critical in shaping the overall development of a child. Adolescent and women's nutrition status are important determinants for the overall nutrition outcomes for a society. Malnutrition is a multisectoral issue and improvements in nutrition indicators of any society can be sustained only when convergent actions involving nutrition sensitive sectors like women empowerment; social protection; livelihoods; water and sanitation; and girls' education - are undertaken.



The women's collectives under State Rural Livelihoods Mission are uniquely positioned to support the multisectoral strategy to promote health, nutrition, and overall community well-being. Learnings from other states have shown that supporting women's collectives to dialogue on health and nutrition helps to build their awareness, and also the potential to lead to community mobilization and demand for available services and entitlements.

The roll-out of Food, Nutrition, Health and WASH (FNHW) strategy under ASRLM will harness this potential for the state of Assam. Congratulate the State Rural Livelihood Mission for this effort. This module for capacity building for different functionaries is a comprehensive book, with sessions encompassing wide range of topics, including food, nutrition, WASH, Health, psychosocial support and gender-based violence.

I thank ASRLM for leading this collaborative work with UNICEF Assam. We wish to express our immense gratitude and sincere thanks to Mrs. Monalisa Hazarika (Project Manager, Social Development, Knowledge Management & Communication), Anindita Deka (State Project Manager-Social Management Framework and Gender), Mr. Buddhanka Bharali (Project Assistant SI-SD) Ms. Parasmeeta Borah (Young Professional FNHW) and Pritam V. Talukdar (Young Professional SMF Gender) from ASRLM for their ardent interest, support and guidance. We look forward to working together with ASRLM on this journey of multi-sectoral convergence and close engagement with communities.

A handwritten signature in black ink, appearing to read 'Jonathan'.

Dr. Madhulika Jonathan
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ACKNOWLEDGEMENT

Post launch of National Nutrition Mission in March 2018, with its 4 pillars as convergence, Jan Andolan, use of ICT and intensified H&N services for first 1000 days, the integration and promotion of FNHW interventions across the country picked up the pace. Several state missions had incorporated Food, Nutrition, Health and WASH (FNHW) interventions in their State Annual Action Plan FY 2019-20 and have initiated activities at different levels. Under convergence, almost all the state missions have initiated FNHW activities either as participation during Poshan Abhiyaan activities like Poshan Maah and Poshan Pakhwada activities and/or integration of FNHW interventions on SHGs and their federations.



Multiple advisories have also been released from the national mission providing directions to state missions on areas of convergence with line departments, ways for integrating social issues including FNHW through SHG and its federations and on other suggestive interventions. However, the national level advisories or circulars are broad and holistic in nature and they do not take into account the state specific variations and needs. Assam also had developed their FNHW operational plan for FY 2020-21. But, for a structured integration of FNHW interventions, a State Operational Strategy was prepared. Later, need for the development of a cascade training module was felt. ASRLM in collaboration with UNICEF have developed this PLA training module for CRP, CLF and SAC members of ASRLM for sensitizing women on Food Nutrition Health and WASH (FNHW).

A great many people have contributed to development of this module. We own our gratitude to all those people who have made this achievable; and because of whom our accommodated experience has been one the community will benefit and cherish forever. Special thanks to Dr. Shweta Sharma (Nutrition Specialist) and Ms. Khushboo Saiyed (State Consultant for Women's Nutrition) from UNICEF Assam for providing technical support and developing content for this module. We would also like to acknowledge UNICEF partner ROSHNI for Tele swabhimaan content, designing and translating this module in Assamese language.

We are hopeful that State, district and block officials, members of CRP, CLF, VO, SHG and SAC, partners and stakeholders across different departments and different levels of implementation will find this module as a resourceful tool for effective implementation of FNHW as envisaged.

A handwritten signature in blue ink, appearing to read 'S. Baruah'.

Smt Krishna Baruah, ACS
State Mission Director,
ASRLMS

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PREFACE

Steps for facilitators at the beginning of every meeting:

1. Welcome all participants and other villagers who are present in the meeting, and conduct the meeting in Assamese language.
2. Inspire the participants to sit in a circle and make them comfortable.
3. Conduct the pre-test to assess knowledge, attitude and practice of participants
4. Encourage active participation and interaction in session games/activities
5. Brief them about the purpose of the meeting.
6. Recap sessions from previous meetings

Steps for facilitators at the ending of every meeting:

1. Sum up the meeting discussion and emphasise key messages so that these can be disseminated further in the community.
2. Briefly highlight about topics to be covered in next meetings
3. Casual talk with participants and other persons for feedback.
4. To offer a vote of thanks to participants and others present in the meeting.
5. Record the minutes and proceeding of the meeting.
6. Conduct the post-test to assess knowledge, attitude and practice of participants
7. for verifying progress in State FNHW indicators, note the number of participants benefitted from sessions and follow actions directed at end of meeting paragraphs.

Introduction to FNHW project and rationale

Background and introduction:

Consuming a balanced diet is vital for good health and wellbeing. Food provides our bodies with the energy, protein, essential fats, vitamins and minerals to live, grow and function properly. We need a wide variety of different foods to provide the right amounts of nutrients for good health. Enjoyment of a healthy diet can also be one of the great cultural pleasures of life. An unhealthy diet increases the risk of many diet-related diseases.

Aggregate levels of under nutrition in Assam remain shockingly high, despite the impressive reduction in stunting in the last decade. The segments most at risk continue to be adolescent girls, women and children, and among them Scheduled Castes and Tribes, Minorities and residents of Tea Garden areas are the worst off, reflecting the insidious economic and socio-cultural deprivation.

The poor nutritional status of adolescent girls, combined with child marriage and multiple pregnancies even before becoming an adult, lead to another dismal fact that 30 per cent of all children are born with low birth weight. So, we add approximately seven million, potentially wasted and stunted, to our population every year! For Assam to be healthy and break the inter-generational cycle of malnutrition, we have to focus on the health, nutrition and social status of children, adolescent girls and women as a priority.

Assam, due to various socio-economic factors, has faced demand side barriers related to lack of awareness, poor health seeking behaviours, social customs and gender discrimination. The factors mentioned above have a direct relation to the active uptake of existing FNHW services by the citizens, especially by those who belong to the marginalized and vulnerable intersectional categories. For bringing in a socio-cultural change, it is important to create awareness at the grass root levels, which pushes the community to demand the available FNHW services and for that layering the intervention through SHG platform is important.

SHG is a women-collective of 10-20 women who meet periodically (weekly) to work towards strengthening the economic, social, political and psychological resources of its members. SHGs banks on the ability of women, working together, to create change through empowerment and collective action. Their primary focus is to build social capacities by generating livelihoods means through savings and loans. Taking example from different states, the FNHW interventions implemented through women's collective are found to have significant outcomes.

Factors such as women empowerment, increasing women's role in decision making, income generation activities, group participation, social networking, collective problem solving etc. favours the SHGs to create that psychosocial change in the community and as a group of women who are referred to as caregiver, they have the potential to bring the required change by pushing the rural and vulnerable communities for the adoption of healthy, nutritional and more hygienic practices.

Goal:

Improvement in the status of key Food, Nutrition, Health and WASH (FNHW) behaviours among SHG women and in turn contribute to poverty reduction by decreasing out of pocket expenditure due to poor health and by increasing income through establishment of FNHW enterprises.

Objectives:

1. Improve awareness among the SHG members on good behaviours and practices on FNHW with special focus on first 1000 days (i.e., Antenatal Care, Postnatal Care, Infant and Young Child Feeding, Maternal and child Nutrition and IFA consumption).
2. Improve knowledge of target beneficiaries through community institutions (SHG, VO and CLF) on government services, schemes and entitlements related to FNHW.
3. Establish and strengthen functional convergence platforms with related SRLM verticals and other government/non-government stakeholders for improving access of SHG households to FNHW services.
4. Improve livelihoods of women under the women collectives (VOs and CLFs) through FNHW enterprises while also improving the FNHW outcomes of households associated with ASRLM SHGs.

Major focus areas of ASRLM under the FNHW Component:

1. Addressing the FNHW related issues of SHG members and children in particular of the community.
2. Increase participation and representation in decision making platforms of the village/panchayat/Block level process.
3. Development and promotion of FNHW based enterprises by the SHG members.

Target Groups:

The universe for FNHW integration interventions is all SHG members and their households from the selected geography. Amongst them, the following target groups will be focused on priority basis:

- Pregnant women
- Lactating mothers (mothers of children under 2 years of age)
- Adolescent girls
- Women of the reproductive age group
- Women who have surpassed menopause and elderly women

Flow of the module:

This module has been divided into 24 sessions. Topics can be picked up by facilitators according to need of community, calendar of events, their priority interest and previous sessions conducted.

MEETING 1: ADOLESCENT HEALTH AND NUTRITION

Adolescence is a crucial phase in the life of a human being, especially women. At this stage, various emotional and physical changes happen in a girl and vital interventions at this stage can help the individual develop positive attitudes towards health and well-being. Lack of nutritional food and healthy & hygienic practices can hamper the growth and development of a girl and hinder her from fully achieving her potential.

Evidence shows that well-nourished adolescent girls stay in school longer, achieve better learning outcomes, delay their marriage and first pregnancy, multiply their life options, and advance their family's and nation's development.

The objective of the meeting:	To sensitize participants on importance of Adolescent health and nutrition
Procedure	Discussion about key behaviours and various schemes for adolescents
Required Equipment	Register where work plan progress will be noted down, notepad, pen, register
Time duration	1 hour 30 minutes

Importance of nutrition for adolescents and key behaviours

- Adolescence (10 to 19 years), is the fastest growing stage which marks the onset of puberty
- Characterized by physical growth, reproductive maturation, cognitive, functional and metabolic transformation
- Physical and lifestyle changes affect nutritional needs and eating habits
- This is a critical window that provides an opportunity to correct nutritional deficiencies that may have occurred in early life and to catch-up on growth, and to establish good dietary behaviours.
- It is a nutritionally vulnerable time when rapid physical growth increases nutrient demands. Dietary behaviours established in adolescence may contribute to nutrition-related problems that have consequences for long-term health.
- Maintaining nutritional health is important for optimum growth and for preventing future health related problems
- Adolescent girls are at greater physiological stress because of menstruation (this will be discussed in the next meeting)
- India is home to 253 million adolescents of which 40% of girls and 18% of boys are anemic. Anemia among adolescents adversely affects growth, resistance to infections, cognitive development and work productivity. This also leads to intergenerational cycle of malnutrition and chains the vicious cycle of poverty.
- In response to this issue, MoHFW and MoWCD has launched several programs like Poshan Abhiyaan, Anemia Mukta Bharat, Weekly Iron and Folic Acid Supplementation (WIFS) programme and more for improving nutritional status. These programs aim at delivering services to vulnerable beneficiaries including school going and out of school adolescents.

- However, CNNS Assam reports that compliance of WIFS amongst adolescent girls and provision of albendazole is as low as 3.3% and 6.3% respectively; which is a big challenge. Also, more than 1/3rd of the adolescents does not consume milk, fruits and green leafy vegetables- which are the major source of micro nutrients.
- Schools are recognised as a critical platform to deliver nutrition interventions and improve nutrition literacy, while acknowledging that school-based interventions need to be supported by community-based approaches and other delivery models, especially to reach out-of-school adolescents. Hence, involvement of education sector through Samagra Sarva Shiksha Abhiyaan (SmSA) is of utmost importance for adolescent nutrition.
- Likewise, Government Line Departments and development partners like UNICEF stand with vulnerable adolescent beneficiaries at a crossroad between losing out on the potential of a generation or nurturing them to transform society. As adolescents flourish, so do their communities, and all of us have a collective responsibility to ensure that adolescence is an age of opportunity.
- *The facilitator will highlight key strategies and behaviours for improving adolescent nutrition in Assam identified by ASRLM and UNICEF-*
 - Advocate and support actions to help adolescents make healthy food and beverage choices, promote dietary diversity, physical activity, and the prevention and treatment of anaemia.
 - Practice personal, menstrual, food and environmental hygiene especially during and after COVID 19.
 - Inclusion of five food groups in daily diet to ensure dietary diversity and nutrition security
 - Go food: energy giving carbohydrate rich food
 - Grow food: for growth and muscle development: Protein rich food
 - Glow food: for boosting immunity and supplying micronutrients: fruits & vegetables
 - Give more focus on food items which are cheaper, nutritious and locally available to avoid purchasing from outside, Make the meal colorful, interesting and healthy even with limited resources.
 - Develop Nutri-kitchen gardens at individual and community levels by empowering adolescent groups. Nutritious fruits and vegetables are grown, consumed and sold out for income generation in many districts. This will be detailed in upcoming sessions of nutri-sensitive agriculture.
 - Support access to nutrition services and entitlements by strengthening existing platforms like WIFS, Kishori Diwas, Village Health Sanitation Nutrition Day (VHSND), Scheme for Adolescent Girls (SAG), Rashtriya Kishore Swasthya Karyakram (RKSK), Adolescent friendly health clinics under RMNCH+A, etc. for bridging gaps between supply & demand and improving compliance of supplies.
- *Now the facilitator will highlight and explain each scheme designed for adolescents-*

WIFS: consuming one blue IFA tablet once in every week (Monday) and one albendazole (deworming) tablet twice in a year. school going adolescents receive this supplementation from school; whereas out of school adolescents receive the same from respective Anganwadi centres. More details will be covered in Meeting 3- Prevention of anaemia.

VHSNDs: VHSND is an inter sectoral collaboration of following four components namely-

- **Health:** It includes basic health and counselling services for reproductive, maternal, new-born, child and adolescent health, Communicable Disease and Non- Communicable Disease.
- **Nutrition:** It includes services as well as counselling related to growth monitoring, breast feeding and complementary feeding, maternal nutrition, micronutrients etc.
- **Early Childhood Development:** It includes age-appropriate play and communication for children.
- **Sanitation:** Defines promotion of hygiene, hand washing, safe drinking water and use of toilets.

Here adolescents receive services like THR, WIFS, growth monitoring, assessment of clinical signs and symptoms, and counselling.

SAG: The overarching objective of the scheme is to provide nutrition and enhance the social and economic status of the adolescent girls in the age group of 11 to 14 years. The idea is to facilitate adolescent girls to become self-reliant and aware citizens of the country by educating and empowering them. The scheme was previously known as Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG or SABLA). Under the scheme, the following services are provided to the beneficiaries.

The services are divided into the nutrition and non-nutrition components.

- Nutrition provision: Every out-of-school registered beneficiary would be provided with supplementary nutrition similar to that of pregnant women and lactating mothers under ICDS containing 600 calories, 18-20 grams of protein and micronutrients for 300 days in a year. This nutrition would be provided in the form of Take-Home Rations or Hot Cooked Meals.
- Iron and Folic Acid (IFA) supplementation: Along with IFA tablets, the Adolescent Girls would also be offered information on food fortification, advantages of supplementation by IFA tablets for combating iron deficiency anaemia, and dietary diversification.
- Health check-up and Referral services: General health check-up of all Adolescent Girls at least once in three months.
- Nutrition & Health Education (NHE): Sustained information on health and nutrition will help enhance the general health of the beneficiaries and also their families which will help to break the vicious intergenerational cycle of malnutrition. This is given in the AWC jointly by the ICDS and health functionaries and resource persons/ facilitator from NGOs/Community Based Organisations (CBOs). Information given includes information promoting healthy traditional practices while dispelling myths, good sanitation practices, safe drinking water habits, healthy eating and cooking habits, managing menarche, personal hygiene, etc.

- Mainstreaming out-of-school girls to join formal schooling, bridge course/skill training: Under this, out-of-school Adolescent Girls are identified and provided guidance to enrol or restart mainstream school. Families are provided with information on the benefits of a formal education. Under this, female role models are also highlighted for girls to emulate.
- Life Skill Education, home management, etc.: Beneficiaries are offered guidance on life skills and also home management (home maintenance, budgeting, saving, running the household, gender sensitivity, schooling of children, etc.) so that they can become productive members of society when they grow up.
- Counselling/Guidance on accessing public services: Awareness talks and visits are arranged in collaboration with PRI members, NGOs/CBOs, health functionaries, police personnel, bank officials, post office officials, school authorities etc.

Kishori Diwas: A special day is to be observed as ‘Kishori Diwas’ once in three months. This would typically be the day on which the general health check-up of the girls would be carried out. On this day, Information Education and Communication (IEC) would be imparted to the community, parents, etc.

Kishori Health Card

The Kishori Health Cards are maintained by the States in Anganwadi Centres (AWCs) to record the Adolescent Girls’ height, weight, BMI (body mass index), along with other services provided under the SAG scheme. The card also carries the details of the achievements or outcomes under the scheme.

RKSK: The new adolescent health (AH) strategy focuses on age groups 10-14 years and 15-19 years with universal coverage, i.e., males and females; urban and rural; in school and out of school; married and unmarried; and vulnerable and under-served. It has four objectives-

i. Improve Nutrition

- Reduce the prevalence of malnutrition among adolescent girls and boys (including overweight/obesity)
- Reduce the prevalence of iron-deficiency anaemia (IDA) among adolescent girls and boys

ii. Enable sexual and reproductive health

- Improve birth preparedness, complication readiness and provide early parenting support for adolescent parents

iii. Enhance Mental Health

- Address mental health concerns of adolescents

iv. Prevent injuries and violence

- Promote favourable attitudes for preventing injuries and violence (including GBV) among adolescents

v. Prevent substance misuse

- Increase adolescents' awareness of the adverse effects and consequences of substance misuse

vi. Address conditions for NCDs

- Promote behaviour change in adolescents to prevent NCDs such as cancer, diabetes, cardiovascular diseases and strokes

Adolescent Friendly Health Clinics are established as part of the earlier National Adolescent Reproductive and Sexual Health Strategy to provide preventive, promotive, curative and referral services to adolescents. Under RKSK, AFHC entails a whole gamut of clinical and counselling services on diverse adolescent health issues ranging from Sexual and Reproductive Health (SRH) to Nutrition, Substance abuse, Injuries and Violence (including Gender based violence, Non-Communicable Diseases and Mental Health. Adolescent Friendly Health Services are delivered through trained service providers- MO, ANM and Counsellors at AFHCs located at Primary Health Centres (PHCs), Community Health Centres (CHCs) and District Hospitals (DHs) and Medical Colleges

END OF THE MEETING:

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Understand and explain various schemes for adolescents viz- WIFS, SAG/SABLA, RKSK, AFHC, etc.
- Revive and support existing platforms for adolescents viz- VHSND, Kishori diwas, Kishori health card, etc.
- Disseminate messages on Importance of nutrition for adolescents and key behaviors to SHG members and women from community

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 2: CLEANLINESS DURING MONTHLY MENSTRUATION

Menstrual hygiene management has been defined as: 'Women and adolescent girls using a clean menstrual management material to absorb or collect blood that can be changed in privacy as often as necessary for the duration of the menstruation period, using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual management materials' (UNICEF and WHO, 2014). Effective MHM means:

- Access to knowledge and information
- Access to safe menstrual absorbents
- Water, sanitation and hygiene infrastructure
- Access to safe disposal of used menstrual absorbents

Effective MHM results in:

- Dignity for adolescent girls and women
- The ability of adolescent girls to stay in school during menstruation

Objective of the meeting	Sensitize the participants on importance of cleanliness and hygiene during monthly menstruation
Method	Participatory, discussion and demonstration (show by making)
Required equipment	clean cotton cloth, sanitary napkin collected from ASHA, notepad, pen, Register where work plan progress will be noted down
Time duration	1 hour 30 minutes

Note for the facilitator:

As there is a cultural obstacle, help can be taken from the ASHA and Anganwadi worker for this meeting. We need to clearly discuss the meeting objective and process with Asha, Anganwadi worker, C.R.P women and SHG members and facilitate a broad discussion with women and adolescent girls. During the meeting, the facilitator has to be there and provide information about the next session topic and date.

Process of the meeting:

To set the context, begin the meeting by asking the following: Possible answers are given in brackets for reference of the facilitator

- How do people refer to menstrual periods? (Possible answers : *Oxubidha*)
- *Oxubidha* – A colloquial word used for Periods- what does this mean? Answer: inconvenience problem
- What are the existing myths and misconceptions around menstruation in your community? (Food myths such as restrictions on eating „*tāga*” or sour foods, girls are not allowed to leave their rooms, touch furniture or other items in the house etc)

- To take forward the discussion ask about *“Tuloni Biya”* or rituals which follow girls first period.
- What other challenges girls face during this time?
- What makes them uncomfortable to ask for a pad or hang washed cloth in the sun?

The facilitator will then say that they had discussed Adolescent health and nutrition in the last meeting. Now it's required to know how maintain menstrual hygiene and cleanliness.

The meeting is divided into 4 parts:

1. Recap of previous meeting
2. Discussion on action taken on planned activities/ implementation
3. Discussion on importance of hygiene and cleanliness during monthly menstruation
4. Sharing of ways to prepare sanitary napkins in cloth and its use

Discussion on previous meeting highlights and action taken on planned activities/ implementation

The facilitator will remember the previous meeting highlights and discuss on working method, its implementation and progress. After this will discuss on today meeting's topic. She will discuss on an importance of hygiene and cleanliness during monthly menstruation.

- The facilitator will first say that, today will discuss about monthly menstruation, which plays a pivotal role for the growth of a woman or girl. Facilitator will then ask- Why do girls get periods? After hearing responses, share information: During the month, blood builds up in the lining of your uterus, which will help a baby develop when a woman wants to have a baby.
- It is not a disease or problem, nor unhygienic and dangerous. Girls should understand that is not a shameful thing. It's a natural process which is an important part of body's growth.

Then ask – what s the process that is taking place in the female body?

Share information: Raised levels of hormones helps eggs grow in your ovaries. Each month, one egg is released into your Fallopian tubes. This is called ovulation. The egg travels down the tube to your womb. And while this happens, your uterine lining thickens with blood to prepare for fertilisation with sperm. If the timing is right, the egg and sperm join together, and the fertilized egg attaches to the lining of your uterus. Pregnancy begins. Without a fertilized egg, the thickened lining has no purpose. So, it sheds and comes out through your vagina. This flow of blood is what we call periods.

- During menstruation give apriority on three things:
 1. Clean-use clean cloths and also clean your private part
 2. Dry-Use dry cloth
 3. Cotton-Use cotton cloth

- The facilitator will ask the participants, what they know about hygiene and cleanliness during menstruation and why it is necessary.
- After listening their answer, he/ she will continue the discussion that, it will dangerous if we cannot keep cleanliness and hygiene.
- If you use unclean cloth, then infection will spread inside your body part. During menstruation cleanliness will refrain from infection and also helpful. By doing this, you will feel good and comfortable in the whole day. Also, you get rid from body smell.
- After this she will discuss some comfortable behavior during menstruation with the participant. Like what kind of cloth or pad they use during monthly menstruation, how they keep it, where they throw it etc.
- The facilitator will discuss on the basis of following points:
 - ♣ What kind of problems happen during that period?
 - ♣ What kind of obstacles happen during that time?
 - ♣ Generally, what they use during monthly menstruation to keep themselves safe
 - ♣ What they do to maintain cleanliness of used clothes
 - ♣ Where they throw those pads or clothes

The facilitator will do the discussion like this way that girls will discuss about cleanliness and hygiene during their monthly menstruation at their home. This way confusion and fear will be cleared from girl's mind as well as they can openly discuss about it. During the starting of monthly menstruation, a lot of curiosity, confusion come girls mind and they keep themselves quite as they don't get an experienced or responsible friend. They don't discuss about their issues no one. At that time, we need to encourage them to talk to their friend sand also, they need to understand it's not a shameful thing. In this situation, a mother can give proper advice to her daughter regarding different questions coming to her daughter's mind. The facilitator will discuss about monthly menstruation with the women participated in the meeting broadly.

Information for facilitator to disseminate further to participants:

1. Some advice for cleanliness and hygiene.
 - ♣ Take bath everyday.
 - ♣ At least change your pad thrice in a day or when pad get wet then change it immediately.
 - ♣ Change your inner wear everyday.
 - ♣ After change of pad or cloth, wash your hands in soap.
 - ♣ After usage of pad, throw it in a safe way.
 - ♣ Use salt mix water to wash cloths, soap and dry it sun.
 - ♣ For monthly menstruation use clean cotton cloth or pad in every month.
 - ♣ Like other day, continue your daily activities.
 - ♣ Eat balanced diet.
 - ♣ To get rid from infection, clean your private parts with pure water and don't use soap.

2. Unhealthy behavior related to monthly menstruation
 - ♣ To dry used clothes in a dark place of the house
 - ♣ To wash used clothes in pond, river or stream water
 - ♣ Use uncleaned inner wear
3. Maintenance of used materials during monthly menstruation
 - ♣ Always use old clean cotton cloth
 - ♣ If its dirty, then wash it pure water, dry it in sun like any other cloth
 - ♣ If there are availability low-cost pads in your area with your Asha worker and you can afford it, then contact Asha worker. Along with this ask her how to use and discard it.
 - ♣ Once the menstruation of a month completes, then wash it in soap, soak it 10minutes in hot water and dry it in sun. Then keep it in a bag to use for next month.
 - ♣ If clothes are good enough to use it again, then throw it away.
4. Negative impacts of unhygienic practice during monthly menstruation
 - ♣ Infection
 - ♣ Dissatisfaction
 - ♣ Irritation
 - ♣ Foul smell
 - ♣ Lack of self confidence

Demonstration of Pad preparation

STEPS TO MAKE A CLOTH PAD AT HOME



Take two cotton clothes, one small and the other bigger in size



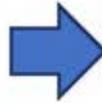
Step 1- Take the bigger cloth and start folding it from both the ends



Step 2- Fold the cloth again from both the sides and keep it aside



**Step 3- Now, take the smaller cloth and fold it into half
(Cotton or gauze can be used instead of the second cloth as an absorbent)**



Step 4- Take the cloth and fold it again in half

Step 5- Now, take the small folded cotton/gauze cloth and place in the one side of the folded bigger cloth



Step 6- Fold the other side and the pad is ready

PLEASE NOTE: The used pad should be washed properly and dried in proper sunlight. It can be reused multiple times.

END OF THE MEETING:

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Understand demonstration of pad preparation at household level.
- Disseminate messages on Importance of menstrual hygiene and key behaviors to SHG members, women and adolescents from community

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 3: PREVENTION OF ANAEMIA

Anaemia is a rising public health problem of all other micronutrient deficiencies. India is one of the countries with very high prevalence of anaemia in the world. More than half of India's children and women are overwhelmingly anaemic. Talking about Assam, anaemia amongst non-pregnant women 15-49 years has increased drastically to 66.4% (NFHS V 2019-2020) compared to 46.1% (NFHS IV 2015-2016)

Objective of the meeting	Sensitize the participants on <ul style="list-style-type: none">• basics of anemia• causes and consequences,• prevention and treatment
Process	Discussion and counselling
Required Equipment	IEC materials on iron rich foods, iron enhancers, iron inhibitors, key messages for children, adolescents and pregnant women, notepad, pen and register where work plan progress will be noted down
Time duration	1 hour 30 minutes

Having given the background of anemia prevalence, the facilitator will explain the basics of anaemia as below-

What is anaemia?

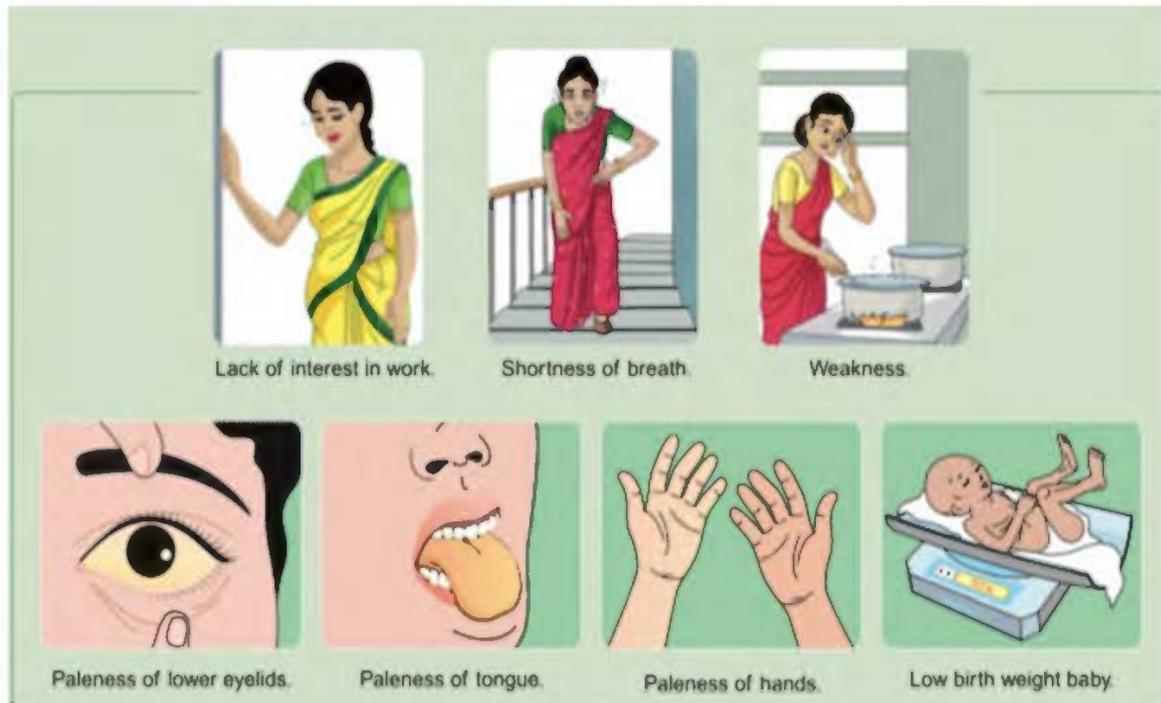
- Anaemia is a condition in which the number of red blood cells or their oxygen-carrying capacity is insufficient to meet the body's physiological requirements. It may vary by age, sex, altitude, smoking habits, and during pregnancy.
- Anaemia across all life stages is a serious public health concern in India. Every second pregnant woman, child under five years of age with adolescent girl and every third adolescent boy is anaemic in India.
- India is one of the countries with very high prevalence of anemia in the world. More than half of India's children and women are overwhelmingly anaemic.
- Talking about Assam, anaemia amongst non-pregnant women 15-49 years has increased drastically to 66.4% (NFHS V 2019-2020) compared to 46.1% (NFHS IV 2015-2016)

Causes of anaemia:

There are many causes of anaemia viz- nutritional deficiencies of iron, vitamin B12, folate, vitamin A; and Infectious diseases viz-malaria, helminth infections, tuberculosis and hemoglobinopathies (thalassemia/, sickle cell, etc.). Poor environmental sanitation, unsafe drinking water and inadequate personal hygiene

Symptoms of anaemia

- Tiredness/fatigue
- Weakness
- Paleness of skin (palm and soles), tongue, eyelids and nails
- Poor academic performance
- Lack of interest in work/play
- Shortness of breath
- Delay or difficulty in learning/ understanding



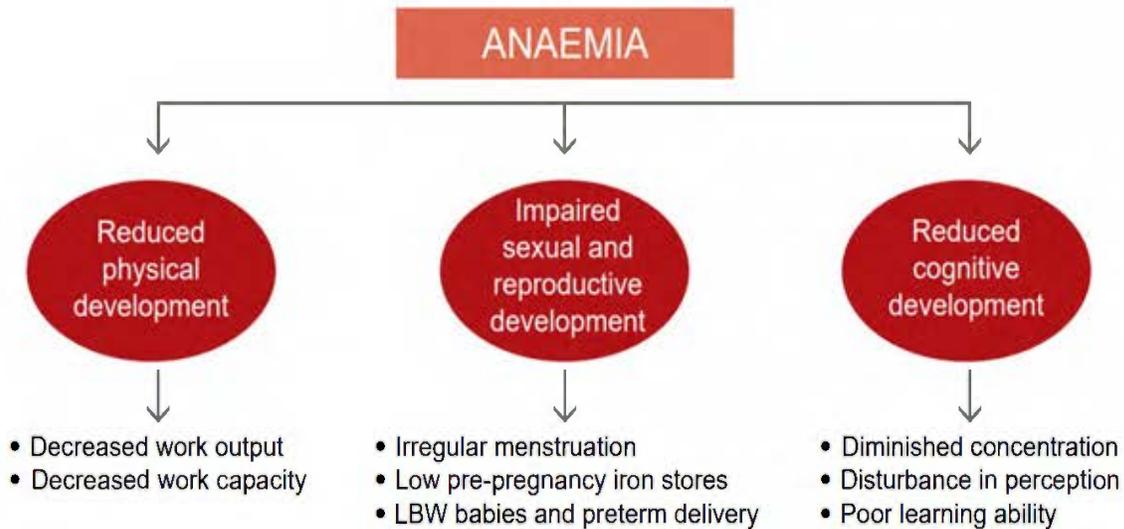
Haemoglobin levels to diagnose anaemia

Age groups	No Anaemia	Mild	Moderate	Severe
Children 6–59 months of age	≥11	10–10.9	7–9.9	<7
Children 5–11 years of age	≥11.5	11–11.4	8–10.9	<8
Children 12–14 years of age	≥12	11–11.9	8–10.9	<8
Non-pregnant women (15 years of age and above)	≥12	11–11.9	8–10.9	<8
Pregnant women	≥11	10–10.9	7–9.9	<7
Men	≥13	11–12.9	8–10.9	<8

Source: Haemoglobin concentration for the diagnosis of anaemia and assessment of severity. WHO

Adverse effects of anaemia

- Anemia lowers immunity and work productively and adversely impacts cognitive development of children. If pregnant women are also anemic, it increases risk to postpartum hemorrhage, neural tube defects, low birth weight, premature births, stillbirths and maternal deaths. In its most severe form, anemia can also lead to death.



Prevention of anaemia



Consumption of Iron rich foods

- Lentils and legumes
- Sprouted pulses
- Green leafy vegetables like spinach, laai, fenugreek leaves, radish leaves, drumstick leaves, curry leaves, mint, amaranth, etc.
- Banana flower
- Nonveg foods like Meat, chicken, fish, liver, eggs
- Bajra
- Rice flakes/ cheera/poha
- Jaggery



Iron enhancers

- Sprouted pulses- chana, moong, math, etc.
- Vitamin C rich foods/citrus fruits like lemon, orange, sweet lime, pomegranate, dangor tenga, outenga, robab tenga, amlokhi, guava, etc. these are rich in vitamin C and helps iron absorption as well as boosts immunity.



Iron inhibitors

Avoid

- Consumption of tea/ coffee before and after meals
- Consumption of salt in tea
- Junk foods
- Carbonated beverages
- Substance abuse like smoking, drinking and tobacco chewing



Key messages for Adolescents 10-19 years

For solid body and smart mind of adolescents,

- Consume 1 blue IFA tablet weekly provided by school/AWC
- Include iron and vitamin C rich foods in daily diet
- Get deworming done by 1 albendazole tablet twice during a year
- If feeling tired, suffering low concentration, difficulty in learning, breathlessness, etc; visit nearest health facility to test and treat anemia



Key messages for pregnant women

For solid body and smart child,

- Consume 1 red IFA tablet starting from 4th month daily for 180 days
- Include iron and vitamin C rich foods in daily diet
- Get deworming done by 1 albendazole tablet in second trimester of pregnancy
- If feeling tired, suffering low concentration, difficulty in breathing, etc; visit nearest health facility to test and treat anemia



Key messages for lactating mothers

For solid body and smart child,

- Consume 1 red IFA tablet daily for 180 days after delivery
- Include iron and vitamin C rich foods in daily diet



After sharing this information, the facilitator will share details of various schemes for preventing anemia:

Government has launched schemes for preventing and treating anemia like Anemia Mukht Bharat (AMB) and Weekly Iron Folic Acid Supplementation (WIFS) as detailed below-

Anemia Mukht Bharat

Anemia Mukht Bharat strategy has been designed, building up on the existing technical guidance from National Iron Plus initiative (NIPi), with a multi-pronged approach and a more robust operational and accountability framework.

Objective:

to reduce prevalence of anemia by 3 percentage points per year among children adolescents and women of reproductive age group (15-49 years), between the year 2018 and 2022

Interventions:

- Prophylactic Iron Folic Acid Supplementation
- Deworming
- Intensified year-round Behavior Change Communication Campaign including ensuring delayed cord clamping
- Testing of anemia using digital methods and point of care treatment
- Mandatory provision of iron folic acid fortified food in public health programmes
- Addressing non-nutritional causes of anemia in endemic pockets, with special focus on malaria

WIFS

- The WIFS programme is for adolescent boys and girls in school (10–19 years) and out of school girls (10–19 years) in urban and rural areas and will be implemented through the platform of Government/Government aided/ municipal schools and AWCs.
- The strategy involves a “fixed day – Monday” approach for IFA distribution. Teachers and AWWs supervise the ingestion of the IFA tablet by the beneficiaries.
- The Department of Health & Family Welfare- NHM makes the IFA tablet available up to the Sub Centre level.
- Nodal teachers and AWW will submit their requirement and collect medicine from sub center.
- Furthermore, MPW will be responsible for estimation of requirement of IFA, stock enquiry and availability of IFA at school/AWC.
- Each Schools and AWCs will prepare 2 copies of monthly WIFS report. One copy to be submitted to the respective department and 2nd copy to their respective Sub Center. This further gets compiled at block and district level and shared with State head quarter.

Goal:

To institute a school and anganwadi based weekly IFA supplementation (WIFS) programme for control of anemia in adolescent boys and girls, age between 10 to 19 years.

Objectives:

- To ensure administration of IFA tablet once per week and Albendazole twice a year for de-

worming.

- To inform adolescent boys and girls of the correct dietary practices for increasing iron intake.
- To disseminate information on preventing worm infestation among adolescences and encourage adoption of correct hygiene practices, including use of footwear to prevent worm infestation.

Strategies:

- Administration of weekly iron-folic acid supplements (WIFS). (IFA tablet containing 60mg elemental iron and 400ug Folic acid) for 52 weeks in a year, on a fixed day preferably Monday.
- Screening of target groups for moderate/severe anemia and referring these cases to an appropriate health facility.
- Biannual deworming (administration of Albendazole 400mg) for control of worm infestation. Dissemination of information on nutrition and counseling for improving dietary intake and for taking actions for prevention of intestinal worm infestation (as NDD).

END OF THE MEETING:

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Understand basics of anemia, its causes, consequences and prevention.
- Disseminate messages on importance of IFA consumption, iron rich foods, iron enhancers and inhibitors to all women in reproductive age group 15-49 years.
- Note number of participants having undergone hemoglobin test in last two months

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 4: MATERNAL NUTRITION- CARE DURING PREGNANCY

Nutrition for women:

Women's nutritional needs change during menstruation, pregnancy, breastfeeding and menopause. A woman's reproductive life means that her nutritional needs differ greatly from those of a man. Good nutrition means eating a wide variety of foods every day, which isn't possible on a restrictive diet. A healthy diet and good mental health are important during breastfeeding because the mother must provide for her own nutrient requirements, as well as for the production of breast milk. Particular attention needs to be paid to protein, calcium, iron, vitamins and fluids.

The best advice is to eat a variety of foods from each of the key food groups each day. The amount of extra food will vary according to appetite needs and weight loss. Women who were anaemic during pregnancy should pay special attention to iron-rich foods as they will need to replace their iron stores. As children, boys' and girls' dietary needs are largely similar. But when puberty begins, women start to develop unique nutritional requirements. And as we age and our bodies go through more physical and hormonal changes, so our nutritional needs continue to evolve, making it important that our diets evolve to meet these changing needs.

While women tend to need fewer calories than men, their requirements for certain vitamins and minerals are much higher. Hormonal changes associated with menstruation, child-bearing, and menopause mean that women have a higher risk of anaemia, weakened bones and osteoporosis, requiring a higher intake of nutrients such as iron, calcium, magnesium, vitamin D, and vitamin B9 (folate).

The objective of the meeting:	To sensitize participants on care during all gestational months of pregnancy and safe delivery
Procedure	Didactics and discussion
Required Equipment	Chart paper, pen, register where work plan progress will be noted down
Time duration	1 hour 30 minutes

Process of the meeting:

The facilitator will start the meeting by saying that they had discussed menstrual hygiene in the last meeting. Now it's required to know care during pregnancy by each gestational month-

Having explained this, the facilitator will disseminate messages on care during pregnancy according to her gestational age:

1st month of pregnancy:

- As your baby's brain and spinal cord are developing, include foods rich in folate such as catla fish, moth beans, kidney beans, soybean, spinach, sem ki phali, sarson ka saag, and chicken liver in your meals and snacks.
- Start consuming one folic acid tablet (400 mg) daily.

2nd month of pregnancy:

- As your baby's bones are hardening at this time, remember to include calcium rich foods such as milk, curd, paneer, ragi, sesame seeds, bathua leaves and methi leaves in your diet
- Continue consuming one folic acid tablet (400 mg) daily and foods rich in folate such as catla fish, moth beans, kidney beans, soybean, spinach, sem ki phali, sarson ka saag, and chicken liver which are important for the normal development of your baby's brain and spinal cord.

3rd month of pregnancy:

- Continue consuming one Folic Acid tablet (400 mg) daily and dietary sources of folate such as catla fish, moth beans, kidney beans, soybean, spinach, sem ki phali, sarson ka saag, chicken liver which are important for the normal development of your baby's brain and spinal cord
- From next month, start consuming 1 Iron Folic Acid (IFA) tablet and 2 calcium tablets daily

4th month of pregnancy:

- As your baby is rapidly increasing in size now, eat at least 3 main meals and 2 nutritious snacks to meet the increased nutrient requirements to ensure proper growth and development of the baby
- As your baby's blood circulation has begun, include rich sources of iron and folic acid like bajra, ragi, fenugreek leaves (methi), spinach, amaranth leaves (chaulai), moth beans, Bengal gram whole, horse gram whole, rajma, soyabean, raisins, egg, catla fish, chicken liver in your diet and consume one IFA tablet daily without fail; this will also prevent you from being anemic
- Ideally, the IFA tablet should be consumed on an empty stomach. However, some women experience gastritis, vomiting or nausea which are the normal side effects of IFA tablets and can be minimized by consuming it 1 hour after the meal. Consume one deworming tablet to prevent or treat worm infestation; worm infestation can lower your nutrient absorption and is one of the causes of anemia
- Vitamin C rich foods like amla, citrus fruits (orange, guava, lemon, mausambi) and sprouted grains/pulses should be included in meals as it improves absorption of iron in the body; IFA tablet may be taken with lemon juice for better absorption of iron; IFA tablet should never be consumed with tea or coffee, milk or calcium tablets
- As your baby's bones and teeth are becoming denser, remember to include calcium-rich sources of food like milk, paneer, curd, ragi, and consume 2 calcium tablets every day with water or milk immediately after meals to avoid gastritis; calcium also reduces your risk of increased blood pressure and convulsions; calcium tablets should never be taken along with IFA tablets as they interfere each other's absorption

5th month of pregnancy:

- As your baby is growing rapidly, include energy and protein rich foods such as wheat flour, bajra, rice, maize, lentil dal, horse gram whole (kulthi), soyabean, sweet potato, banana, groundnut, walnut, milk, paneer, egg, chicken, jaggery/sugar, fish, and oils in your diet
- Ensure that you eat at least 3 main meals and 2 nutritious snacks to meet increased nutrient requirements
- Continue consuming one IFA tablet with water or lemon juice 1 hour after a meal
- Consume 2 calcium tablets every day with water or milk immediately after meals

6th month of pregnancy:

- As your baby's eyes are developing, to ensure their proper development, remember to include vitamin A rich sources of green leafy vegetables like drumstick leaves (sehjankepatte), fenugreek leaves (methi) and yellow and orange colour fruits and vegetables like papaya,

tomato, musk melon, carrot, sweet potato, pumpkin, milk and milk products and egg and goat liver in your meals and snacks daily

- Continue consuming one IFA tablet with water or lemon juice 1 hour after meal
- Continue consuming 2 calcium tablets every day with water or milk immediately after meals

7th month of pregnancy:

- Ensure that you eat at least 3 main meals and 2 nutritious snacks to meet increased nutrient requirements and for proper growth and development of the baby
- Your baby's rapidly growing brain and developing vision needs a variety of cooking oils (mustard oil, groundnut oil, soybean oil, coconut oil), nuts and oilseeds and fish. Ensure you eat these sources of 'good fat' and avoid 'bad fat' like vanaspati, margarine and reused oil
- Continue consuming one IFA tablet with water or lemon juice 1 hour after a meal and 2 calcium tablets every day with water or milk immediately after meals; you will continue to consume these tablets after delivery till your baby is six months old
- When your baby is born, initiate breastfeeding as soon as possible and within 1 hour of birth, the baby should only be breastfed till six months of age; no other liquid, including water, should be given to the baby during this time

8th month of pregnancy:

- As your baby is gaining weight, you should include energy dense food items like cereals (wheat, rice, jowar, ragi, bajra), pulses (green gram, Bengal gram, soyabean), milk and milk products, cooking oils (mustard oil, soyabean oil, groundnut oil, coconut oil), nuts and oilseeds (sesame seeds, groundnuts, flax seeds) and jaggery.
- Ensure that you eat at least 3 main meals and 2 nutritious snacks to meet increased nutrient requirements and proper growth and development of the baby
- Continue consuming one IFA tablet with water or lemon juice 1 hour after a meal and 2 calcium tablets every day with water or milk immediately after meals; you will continue to consume these tablets after delivery till your baby is six months old

9th month of pregnancy:

- As your baby is gaining weight you should include energy dense food items like cereals (wheat, rice, jowar, ragi, bajra), pulses (green gram, Bengal gram, soya bean), milk and milk products, cooking oils (mustard oil, soyabean oil, groundnut oil, coconut oil), nuts and oilseeds (sesame seeds, groundnuts, flax seeds) and jaggery.
- Ensure you eat at least 3 main meals and 2 nutritious snacks to meet increased nutrient requirements and for proper growth and development of the baby
- Continue consuming one IFA tablet with water or lemon juice 1 hour after meal and 2 calcium tablets every day with water or milk immediately after meals; you will continue to consume these tablets after delivery till your baby is six months

The facilitator will now explain the participants for identifying possible symptoms of danger during pregnancy

Some complexities during pregnancy

For delivery complexities, contact fast referral unit (FRU)/health centre with better medical facilities

- Excessive bleeding from vaginal passage High temperature during fever
- Jerking sensation
- Losing consciousness – the baby becomes motionless in womb Prolonged labour pain

Some other problems which can be treated, but not required immediately

- Excessive vomiting
- Experiencing labor-like abdominal pain, or water coming out of vaginal passage suddenly before the end of 9th month.
- Swelling of face, hand and foot Foul smelling vaginal discharge Severe headache
- Under eye, tongue or palm turning pale, difficulty breathing and fatigue Excessive weight gain
- Less increase of body weight, but bigger size of abdomen

Increase of weight during pregnancy: The weight of pregnant woman increases along with the growth of the baby in the womb. In this way, the weight of the pregnant woman increases from 1-1.5kg. and it grows 10-12 kg. in 9 months, which includes the baby's weight, the weight of amniotic sac and placenta, the weight of uterus, growth of breast, the increasing amount of blood. If the pregnant woman's weight increases at a lesser rate than this, it is a sign of danger and it can be considered that the baby in the womb is not growing properly.

Preparation for encountering complex situations

Discuss that all types of pregnancy are dangerous and the family members should always be ready for any sort of emergency and life-threatening situation.

The family members should always be ready for any sort of emergency delivery situation (discuss twice and encourage them that its preparation is essential).

They should know the address of the nearby medical and the vehicle for transportation (such as jeep, *Janani suraksha yojana* express, 102 ambulances, etc. by which the woman can be taken to medical during emergency situation.

Some amount of money should be saved beforehand for this purpose.

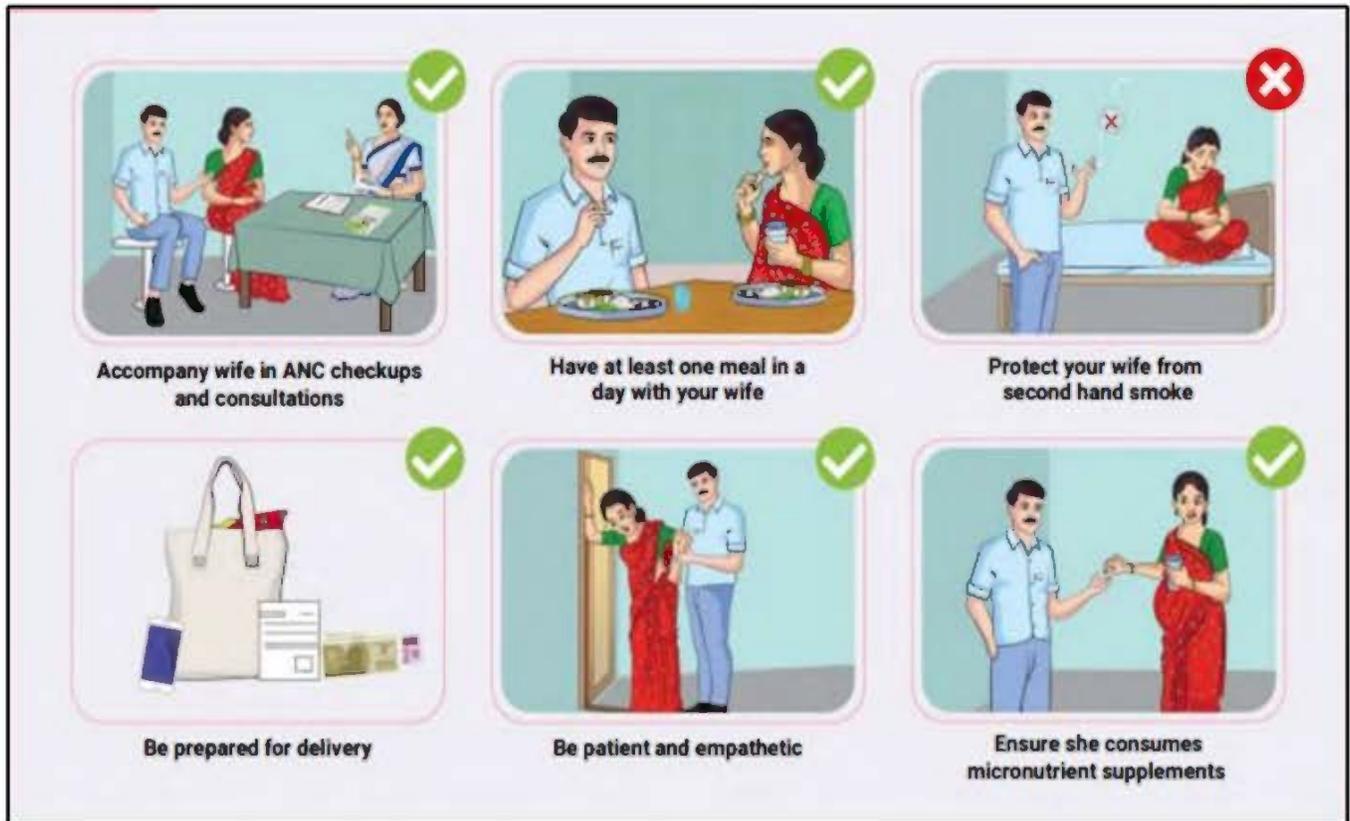
If, due to emergency situation, blood is required for the woman, the family members should be ready for giving blood.

Role of husband and family members:

Husbands and family members play an important role in boosting moral support of a woman during and after her pregnancy. The husband should-

- Accompany wife in ANC check-ups and consultations
- Have at least one meal in a day with wife
- Protect wife from second hand smoke
- Be prepared for delivery

- Be patient and empathetic
- Ensure she consumes micronutrient supplementations
- In absence of husbands, the mother-in-law/sister in law or any of her family member should accompany her for ANC/VHSNDs and ensure she takes proper rest and services throughout



END OF THE MEETING:

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Disseminate messages on Importance maternal nutrition, and care during each gestational month.
- Identify and disseminate messages on danger signs, risk during pregnancy and birth preparedness
- Note number of participants who attended counselling sessions for pregnant women during ANC/VHSNDs.

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 5: ACTIONS FOR MATERNAL NUTRITION AND MENTAL HEALTH

The objective of the meeting:	To sensitize participants on 5 major services to be provided to pregnant women by ANM/ASHA
Procedure	Didactics, leaflet on 5 actions for maternal nutrition and mental health to be used during VHSND sessions.
Required Equipment	Chart paper, pen, register where work plan progress will be noted down
Time duration	1 hour 30 minutes

The facilitator will discuss about importance of mental health and wellbeing during pregnancy giving local examples and studies. He/she will then use the leaflet attached at end of session to explain five major services to be provided to pregnant women by ANM/ASHA during VHSNDs. The SHG women should be encouraged to attend VHSNDs organized in their areas, identify and encourage women from community to attend VHSNDs and attend services there and observe ANM/ASHA counseling them using this.

1. Nutrition and mental health assessment:

1.1 Ask (1st contact only)

- Age
- Obstetric history
- Last Menstrual Period
- Any medication
- Recurrent or prolonged illness
- Night blindness in previous pregnancy

Symptoms Every contact (1st to 8th contact)

- Current symptoms Fever, cough, blood in sputum, morning sickness (nausea and vomiting), heartburn, constipation, increased urinary frequency/burning during urination, giddiness, fatigue, palpitations, shortness of breath, worm infestation, sudden weight loss, night blindness (especially in 3rd trimester)
- Eating habits and physical activity Number of meals consumed in a day, food habits, snacking and fasting pattern, consumption of caffeine, alcohol, tobacco and substance abuse, food restrictions and allergies, if any and physical activity (type, duration and frequency)

Psychosocial risk factors (every contact)

- In the past, have you ever experienced severe mental stress or tension that interfered with your daily activities? OR received any psychiatric treatment Yes/No
- Did you experience any mental stress or tension during previous childbirths? Yes/No/NA
- Do you have enough emotional support during this pregnancy? Yes/No
- Do you have support for your household chores during this pregnancy? Yes/No

- Are you concerned about your financial situation OR your workplace supports you for this pregnancy Yes/No
- In the last one year have you faced any domestic violence Yes/No
- Did you experience any loss (death of near one, financial loss, miscarriage or abortion) in the past 1 year? Yes/No

1.2 Measure 1st contact only (should be within 12 weeks of conception)

- Height
- Weight
- BMI (BMI calculated only if pregnancy is <20 weeks)
- Blood pressure
- Compute body mass index
- Compute gestational weight gain

For mental health assessment, ask at every contact-

a) Over the last 2 weeks, how often have you been bothered by little interest or pleasure in doing things?

Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
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b) Over the last 2 weeks, how often have you been bothered by feeling down, depressed or hopeless?

Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
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(a+b)= _____

c) Over the past 2 weeks, how often you been bothered by feeling nervous, anxious or on edge

Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
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d) Over the past 2 weeks, how often you been bothered by not being able to stop or control worrying

Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
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(c+d)= _____

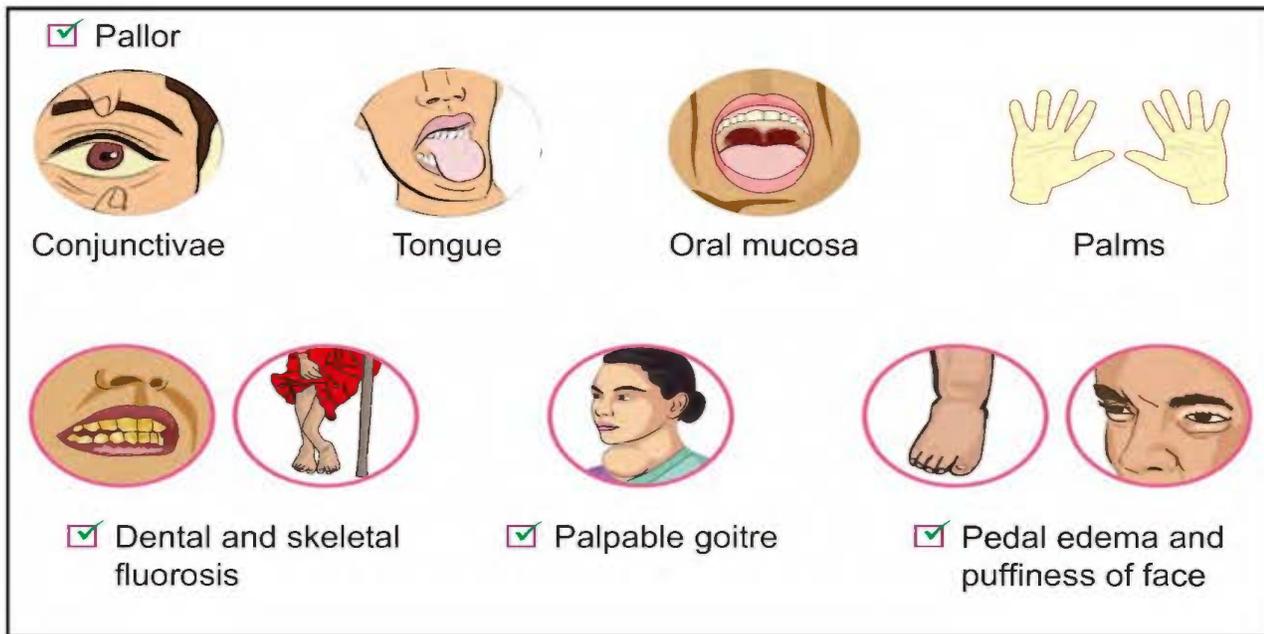
e) Over the past 2 weeks, how often have you been bothered by thoughts that you would be better off dead or of hurting yourself in some way **Yes/No**

f) If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home or get along with other people?

Not at all (0)	Several days (1)	More than half the days (2)	Nearly every day (3)
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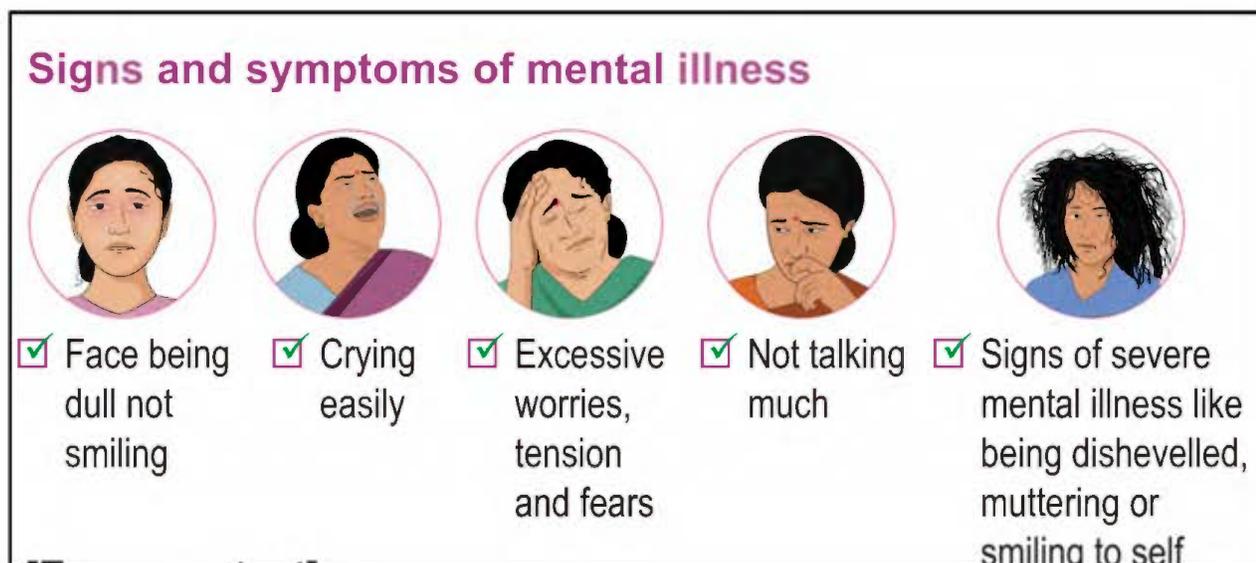
1.3 Look for Every contact (1st to 8th contact)

- Pallor (conjunctivae, tongue, oral mucosa and palms)
- Palpable goiter
- Dental and skeletal fluorosis
- Pedal edema or puffiness of face



Signs and symptoms of mental illness

- Face being dull not smiling
- Crying easily
- Excessive worries, tension and fears
- Not talking much
- Signs of severe mental illness like being disheveled, muttering or smiling to self



1.4 Test

- Blood test: hemoglobin (every trimester)
Oral Glucose Tolerance Test (OGTT) for assessing gestational diabetes (1st and 3rd trimester)
- Urine test: albumin and sugar (every trimester)

2. Give-Micronutrient supplementation:

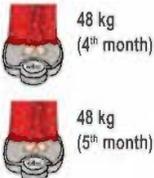
- Folic acid supplementation (400 mcg, daily only in 1st trimester)
2nd trimester onwards (2nd - 8th contacts)
- Iron-folic acid supplementation (60 mg elemental iron and 500 microgram folic acid, daily from 14 weeks onwards for 180 days and also 180 days postpartum)
- Calcium supplementation (500 mg with 250 IU Vitamin D3 twice a day, from 14 weeks onwards for 180 days and also 180 days postpartum)
Every contact (1st- 8thcontact)

3. Counsel:-

20 minutes group counselling of pregnant women and their husbands
simple ways to enhance mental health in pregnancy(1st-8th contact)

- Getting support
- Moderate work and exercise
- Nutrition
- Think positively
- Share your problems

4. Classify nutritional and mental health risk on basis of image below-

Short	Young	Low BMI/Thin	Very low MUAC	Obese	Inappropriate gestational weight gain	Moderate or severe anemia	Psychosocial risk
							<input checked="" type="checkbox"/> High risk (Yes to any of the 7 Questions in ASK (1.1) AND/OR In MEASURE (1.2) A+B > 3 (Depression likely) OR Questions C+D > 3 (Anxiety likely) OR Question E - Yes <input checked="" type="checkbox"/> Moderate risk: Yes to any of the 7 Questions in ASK (1.1) AND No Depression, Anxiety or Self Harm ideas <input checked="" type="checkbox"/> Low risk: No to any questions in ASK (1.1) AND In MEASURE (1.2) A+B < 3 (Depression unlikely), C+D < 3 (Anxiety unlikely), E = NO
<input checked="" type="checkbox"/> Height <145 cm	<input checked="" type="checkbox"/> Age <20 years	<input checked="" type="checkbox"/> BMI <18.5 kg/m ² (<20 weeks of gestation) OR Weight <45 kg OR MUAC <23 cm	<input checked="" type="checkbox"/> MUAC (<21cm)	<input checked="" type="checkbox"/> BMI ≥25 kg/m ² (<20 weeks of gestation) OR MUAC ≥33 cm	<input checked="" type="checkbox"/> <1 kg/month OR > 3 kg/month (after 1st trimester)	<input checked="" type="checkbox"/> Haemoglobin 7-9.9 g/dL (Moderate), <7 g/dL (Severe)	
<input checked="" type="checkbox"/> Check for co-existence of medical illness							
<ul style="list-style-type: none"> • Hypertensive disorders of pregnancy • Gestational diabetes mellitus 	<ul style="list-style-type: none"> • Malaria • Tuberculosis • Fluorosis • Goitre 		<ul style="list-style-type: none"> • Hypothyroidism and hyperthyroidism • Urinary tract infection • Sexually transmitted infection 	<ul style="list-style-type: none"> • Heartburn / nausea / vomiting • Constipation • Human immunodeficiency virus 			

5. Actions by nutritional and mental risk

15 minutes individual counselling

Treat moderate anemia with two IFA tablets daily

Refer to PHC/nearest health centre for treatment of severe anemia as well as for confirmation of medical illness

Red mark on Mother Child Protection (MCP) card for fortnightly follow-up home visits

Refer to health and wellness centre for management of thinness and obesity

Refer to medical officer/DMHP psychiatrist for the following-

- Mothers with HIGH RISK-

Discuss and refer to medical doctor

Follow up at every visit and check for anxiety and depression and any prescribed medication

Discuss with MO/DMHP, meet family member and advice

- Mothers with MODERATE RISK-

Assess anxiety and depression at every visit- meet family member and advice support

Counsel for 10 minutes on ways of handling psychological distress

If YES to the question of DV- offer WHO LIVES and provide number of WCD HELPLINE/OSC

- Mothers with LOW RISK-

Counsel for 10 minutes on psychological wellbeing measures

Note: the leaflet attached below comprise of all 5 actions for maternal nutrition and mental health to be used during VHSND sessions. The facilitator will sum up the session here. More details on Mental health is covered up in the next session on Mental Health and Psychological Support (MPHSS). Audience will relate to its importance for different age groups and their coping mechanisms.

5 ACTIONS FOR MATERNAL NUTRITION & MENTAL HEALTH SERVICES IN VILLAGE HEALTH SANITATION AND NUTRITION DAY

1 NUTRITION & MENTAL HEALTH ASSESSMENT

ANM & ASHA

2 GIVE

3 COUNSEL

ASHA & AWW

4 CLASSIFY NUTRITIONAL & MENTAL HEALTH RISK

5 ACTIONS BY NUTRITIONAL & MENTAL HEALTH RISK

ANM

1 NUTRITION & MENTAL HEALTH ASSESSMENT

1.1 ASK

- Age
- Obstetric history
- Last menstrual period
- Any medication

1.2 MEASURE

- Weight
- Height
- Mid-upper arm circumference (MUAC)
- Current body mass index
- Consume iron-folate tablets
- Consume prenatal vitamin

1.3 LISTEN

- Feeling
- Concerns
- Stress
- Worry
- Loneliness
- Isolation
- Loss of interest
- Changes in eating habits
- Changes in sleeping patterns
- Changes in social interactions
- Changes in physical activity

1.4 TEST

- Blood and Haemoglobin (Every trimester)
- Urea and Albumin (Every trimester)

2 GIVE

- Iron-folate tablets
- Iron-folate supplements
- Antenatal vitamins
- Calcium tablets

3 COUNSEL

- 30 minutes group counselling of pregnant women and their husbands using AWW
- Simple ways to enhance mental health during pregnancy
- Seeking support
- Moderate work and exercise
- Relaxation
- Team activities
- Share your concerns

4 CLASSIFY NUTRITIONAL & MENTAL HEALTH RISK

Weight	Height	Low MUAC	Very low MUAC	Severe	Antenatal vitamin use	Iron-folate supplement use	Stress or worry level	Psychosocial risk
High	High	Low	Very low	Severe	Yes	Yes	Low	Low
Low	Low	High	Very high	Severe	No	No	High	High

5 ACTIONS BY NUTRITIONAL & MENTAL HEALTH RISK

- High risk: Refer to Health and Nutrition Centre for the management of stress and anxiety
- Low risk: Continue with current care

END OF THE MEETING:

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Identify and understand 5 actions for Maternal nutrition and Mental health
- Identify and encourage women from community to attend and avail services during VHSND. Handhold ANM/ASH to disseminate messages on danger signs, risk during pregnancy and birth preparedness to beneficiaries
- Note number of participants who attended counselling sessions for pregnant women during ANC/VHSNDs and ensured receipt of these 5 actions by pregnant women.

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 6: MENTAL HEALTH AND PSYCHOLOGICAL SUPPORT (MHPSS)

“*Lokah Samastah Sukhino Bhavantu*” meaning, “may everyone in the whole world, be happy” is how Indian philosophy summarizes MHPSS. In modern parlance, it is the humane response if an individual when faced with any problem, adverse situation, or perceived threat, is made comfortable with an assurance that there is care, security, and support. Psychosocial support means a system of care and support which influences both the individual and the social environment in which people live. It covers the entire range of care and support offered by family members, caregivers, friends and community members; extending to specialized health care, psychological and social services as well as various public services offered under governmental schemes and policies.

Objective of the meeting	Sensitize participants on importance of Mental Health and Psychological Support (MHPSS)
Process	Discussion and interactive exercises
Required Equipment	Register where work plan progress will be noted down, acting, locally available contraceptive ways, pen and notepad
Time duration	1 hour 30 minutes

Instructions to the facilitator

- ✓ Review and go through the pre-session checklist with group members.
- ✓ Discuss with group members on the session objective and content.
- ✓ Introspect on the following questions.
 - Q1. What are the coping strategies identified in the pre-session checklist. Is there more positive or negative?
 - Q2. What actions can group members take about their coping strategies on their individual level?
 - Q3. What can the group members do as a group?
- ✓ Take the group through the activities below.
- ✓ Ask the group to present their decisions and points.
- ✓ Review the notes with group members and conclude.

Session Objective: Understanding the importance of self-care

Self-care refers to the activities that you choose to engage in on a regular basis to maintain and enhance your psychological well-being. Self-care helps to prevent feelings of stress, by giving your body and mind time to rejuvenate. Self-care helps you be more productive and builds resilience.

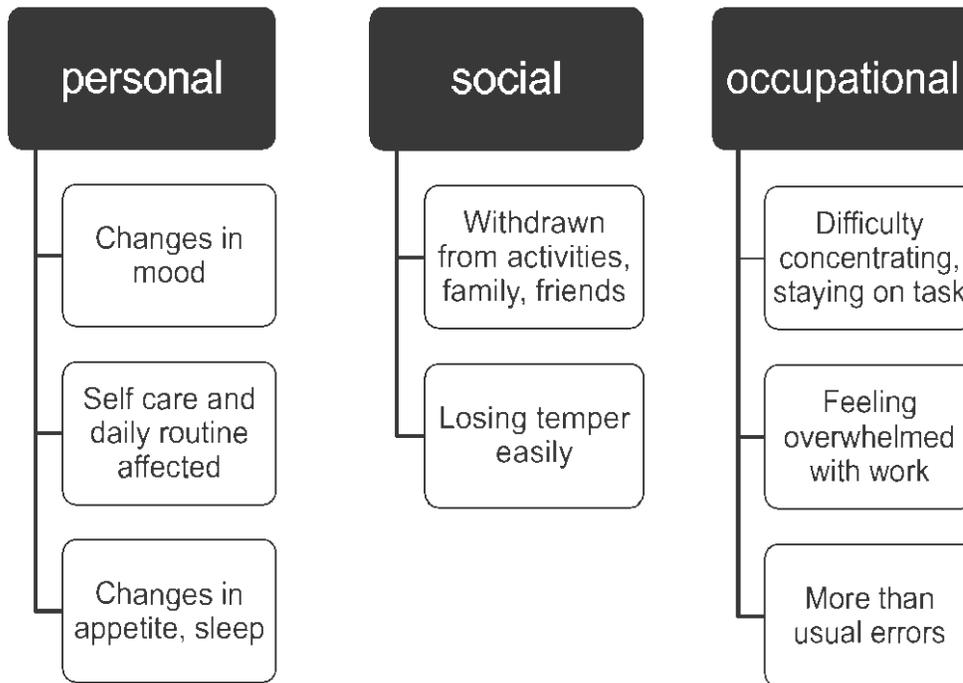
Pre-session: Coping Strategies Checklist: Identify your coping strategies (tick the applicable one)

POSITIVE STRATEGIES	NEGATIVE STRATEGIES
<ul style="list-style-type: none"> • I look at life positively • I do physical exercises • I listen to music • I read books to relax • I share my feelings with my friends • I have hobbies & interest • I have nutritious food • I am capable to face stressful situations • I try to learn from others • I ask for help when I need it • I let go of misunderstandings • I practice gratitude • I use humor • I try to be present in the moment • I think of the good things that have happened in my life 	<ul style="list-style-type: none"> • I look at life negatively • I take substances like sikhar, cigarettes, haria when stressed • I think of past events all the time • I complain about things that did not gomy way • I do not talk to friend sand family when stressed • I do not share my emotions • I overeate when I feel stressed • I cannot let go of misunderstandings • I compare myself with others a lot • I do not like to ask for help • I get easily angry and argue with others • I get easily irritated • I often blame others for what has gone wrong in my life • I worry too much
<i>(1 tick = 1 point)</i>	
<i>Positive score:</i>	<i>Negative score:</i>

After declaring scores of each participant, the facilitator will begin with the session by defining mental health and mental wellbeing to the participants and follow-

Mental health and wellbeing is defined as psychological, emotional and social wellbeing of an individual. It is influenced by how we think, feel or act/ behave. It is a state of wellbeing in which the individual realizes his/her own abilities, can cope with normal stress of life, can work productively and fruitfully and is able to contribute towards the community. It is the capacity to lead a life with purpose and meaning, quality of life.

Changes in mental state can be identified by any recognizable behavior that affects functioning in personal, social or occupational aspects as below-



Apart from this, mental wellbeing has a lot to do with pregnancy and birth outcomes. If the mother is suffering from common or severe mental illness/distress/anxiety/depression, etc during her pregnancy, it directly or indirectly affects the fetus. Environment in the uterus during different critical periods can alter the development of fetus with permanent effect on the child.

Examples of antenatal stress are:

- Maternal anxiety and depression
- Partner or family discord, violence
- Major life events
- Experience of acute disasters. Eg- floods, storm, covid 19 infection or riots.

Consequences of untreated antepartum depression are-

- Failure to seek antenatal care
- Inadequate diet, IFA supplementation and other ANC services
- Use of tobacco, alcohol and other harmful substances
- Risk of self-harm or suicide
- Miscarriage or preterm birth, poor fetal growth and impaired fetal and postnatal development
- Postpartum depression (most common)

However, it is important to note that sensitive early mothering can reverse some of the effects of antenatal stress. It is important to identify the protective factors at early stage viz-

- Education
- Good social support from partner, friends and family
- Planned and desired pregnancy
- Being employed- financial security
- Spouse being employed and earning
- Good coping skills and problem-solving abilities
- Availability and access to good obstetric care

Now the facilitator will discuss few interesting interactive exercises with participants one by one-

Exercises : Self-Compassion and Self-Care

Here are some simple exercises to relax and lower your stress, to express and experience self-compassion and self-care.

Exercise1: Practice Breathing

Close your eyes

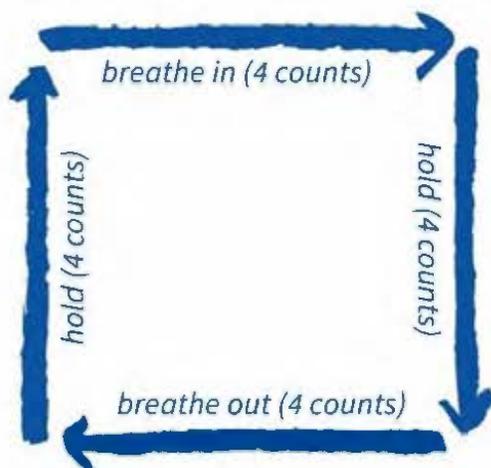
Breath through nose & loosen your body

- Breathe in slowly counting 1-2-3-4
- Stop your breathe slowly counting 1-2-3-4
- Breathe out slowly counting 1-2-3-4
- Stop your breathe again slowly counting 1- 2 - 3 - 4

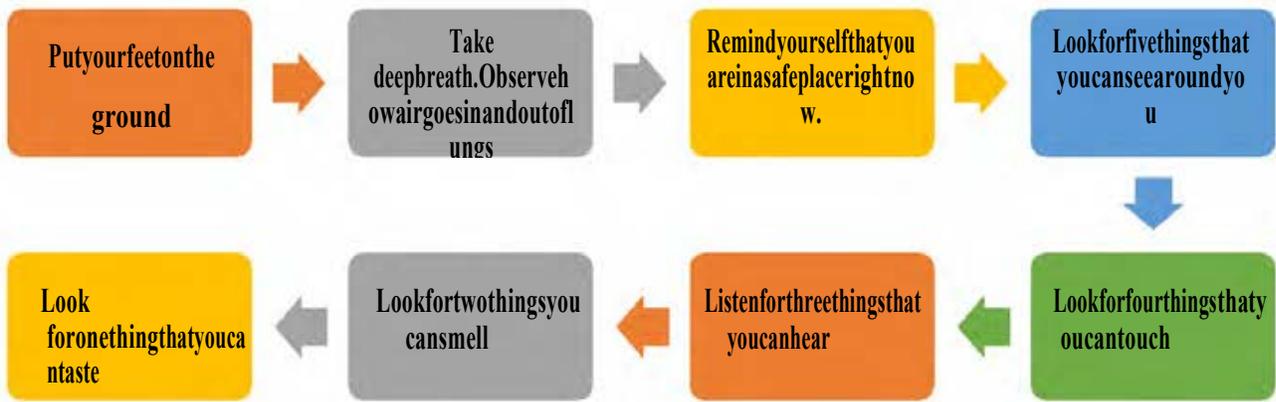
Do this for 5 times and breath normally then

Square Breathing

A simple breathing technique to relieve stress.

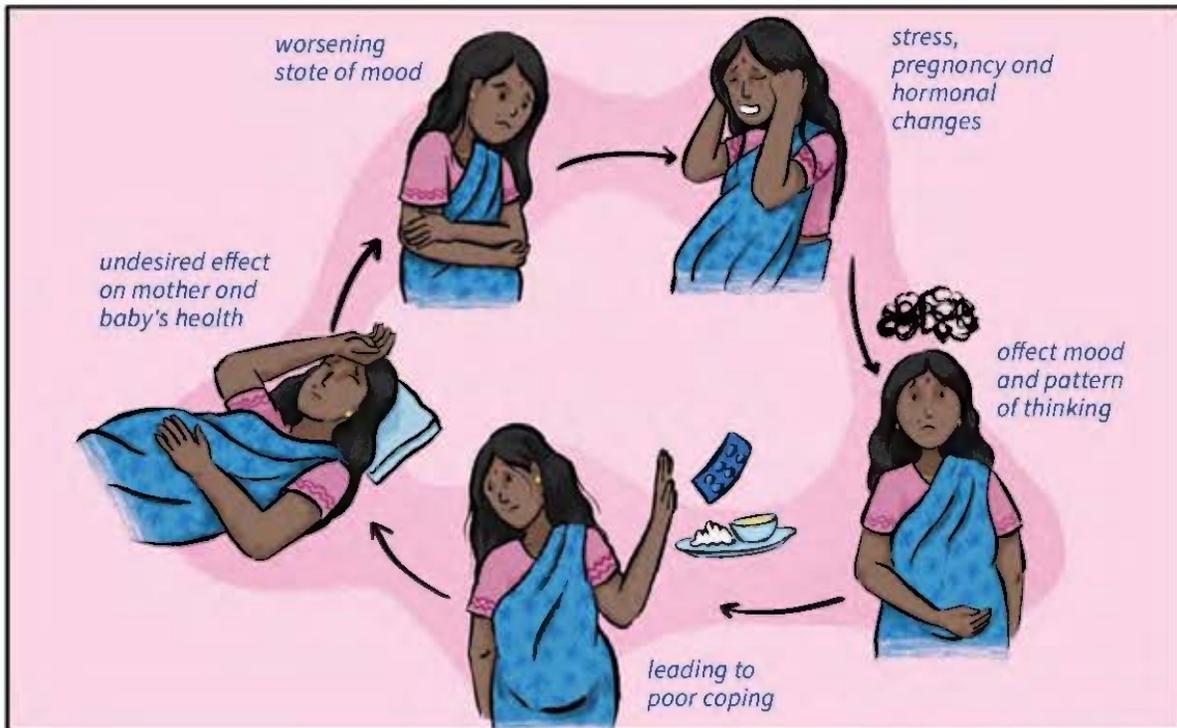


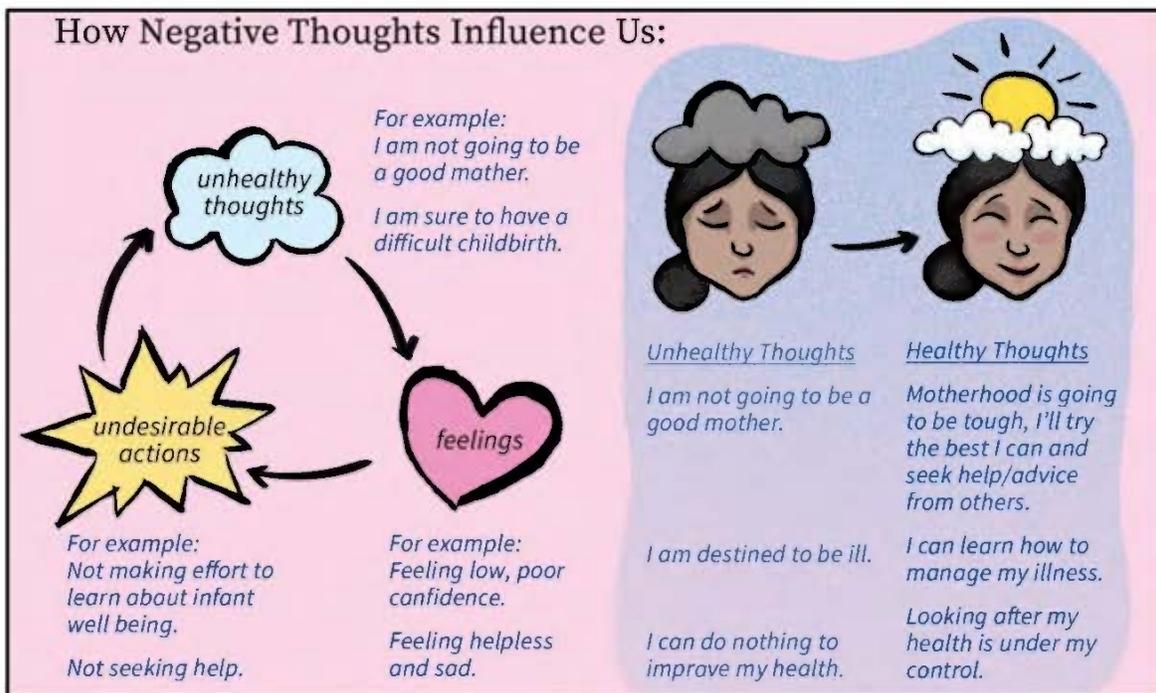
Exercise2: Mindfulness Practice



Exercise3: Handling negative thoughts and emotions

The facilitator will explain this cycle saying- When a woman is sad or depressed, she may have a lot of negative thoughts which then has an effect on her mood. As shown in the cycle below, the stress of daily life and hormonal changes can affect the mood of a pregnant woman and may affect the nature of thoughts. If one has negative thoughts it leads to poor problem solving and poor coping with difficulties which leads to further negative mood. We participants should help them cut this cycle.





Now the facilitator will share important self-care guidelines with participants as below-

Guidelines to living style

- Maintain a good diet
- Do some exercise
- Take short break in between work
- Enjoy quality time with family and friends

Sleep Hygiene

- Try to follow a regular bed time routine.
- Go to bed at the same time everyday
- Read a book or listen to calm relaxing music Before bed time.
- A void using mobile before sleeping
- Avoid drinking too much tea / coffee

REMEMBER

- Self-care refers to the activities that you choose to engage in on a regular basis to maintain and Enhance your psychological well-being.
- It is important to deal with stress by examining the coping strategies and whether it is helpful or not.
- Some ways of self-care are changing lifestyle, sleep hygiene and self-care while at work.

Rest & Recreation

- Expressive your creativity by engaging in various forms of arts
- Develop new hobbies
- Play outdoor sports (when feasible) and indoor games to stimulate and re-energize your mind.
- Nurture plants and pets.
- Listen to music that you like
- Walk to uplift your mood.

While at Work

- Don't be over-critical of yourself. It is important to remember what is in your control and do the best you can.
- Share a friendly relationship with colleagues
- Reach out to your colleagues in times of distress
- Celebrate your successes; give credit to yourself and to your colleagues for the work done.

END OF THE MEETING:

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Understand importance of mental health and wellbeing at different stages of life especially during pregnancy.
- Disseminate messages on treating this issue by protective factors, self-compassion and care
- Note number of participants having identified/referred patients for psychological support

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 7: PREVENTING AND ADDRESSING GENDER-BASED VIOLENCE

Sexual and Gender-Based violence refers to harmful acts directed at an individual based on their gender. It is the outcome of gender inequality, abuse of power and harmful social norms. It is a serious violation of human rights and a life-threatening health and protection issue. Such violence may take place within the family or community and the perpetrators may also be persons in a position of trust, responsibility, or power. While both boys and girls can experience violence, girls and women within a predominantly patriarchal society are disproportionately affected because of gender inequality.

Objective of the meeting	Sensitize participants on importance of Preventing and Addressing Gender-based Violence
Process	Discussion and interactive exercises
Required Equipment	Register where work plan progress will be noted down, acting, locally available contraceptive ways, pen and notepad
Time duration	1 hour 30 minutes

Instructions to the facilitator

- ✓ *Discuss with group members on the session objective and content.*
- ✓ *Introspect the following questions.*
 - *Q1. What are the different types of violence identified?*
 - *Q2. What are the guidelines for reporting the violence and supporting the survivors?*
 - *Q3. What actions can group members take on their individual level?*
 - *Q4. What can the group members do as a group?*
- ✓ *Take the group through the activities below.*
- ✓ *Ask the group to present their decisions and points.*
- ✓ *Review the notes with group members and conclude.*

Session Objective: Preventing, identifying and reporting violence

Women and children are at greater risk of abuse in households with domestic violence. It has been observed that during the pandemic, many women and children faced increased incidences of violence within their homes. There are many forms of violence including neglect, physical abuse, sexual abuse, exploitation, and emotional abuse.

- Physical Abuse: hitting, shaking, throwing, burning, etc.
- Sexual Abuse refers to any sexual act without vocal consent from the women. For children, all and any sexual act by persons over the age of eighteen is considered sexual abuse.
- Emotional Abuse: teasing/ bullying, yelling, criticism, exposure of a child to domestic and family violence, child neglect, etc.

It causes feelings of helplessness, diminishes their sense of self, and ability to feel the emotion sand

experiences. It is important to get help for coping with past trauma. The following are some of the signals that the women or child is experiencing violence at home, school or in community.

- A voiding eye contact.
- Difficulty in sleeping and/or eating
- Does not like to be touched
- Does not smile in situations calling for such a response.
- Does not show emotions.
- Do not like to mix with other people
- Poor concentration in studies/work
- At times may show aggressive behavior
- Lacks interest in most activities
- Often cries or feels sad (Mood swings)
- Has disturbed sleep wakes up frightened.
- Repeated medical complaints without a known medical cause (headaches, stomachaches, pain in arms or legs)

Guidelines for reporting and supporting the survivor

- Remember the person is a survivor and not a victim.
- Talk in a calm tone and polite manner while addressing the issue. Listen to the survivor without any judgement. Be patient, allow and encourage the survivor to ventilate feelings and distress. Re-building trust may be difficult if the survivor has had a close relationship with the abuser. One may blame himself/herself for the abuse, assure her / him that it is not their fault.
- If the survivor is an adult woman, support them by giving information about the different care and support services they are entitled to, especially **women's helpline 181**. If the survivor is a child, immediately contact **Child line 1098**. Then, contact CWC, CPC members, or police.
- Provide them a safe shelter and immediate medical support, if required.
- Observe for any change in behavior. The survivors may have a lot of negative feelings like anger, suicidal ideation or other self-harm behaviors. Avoid repeatedly asking about the traumatic event and don't speak to others about the event when the survivor is close by and can hear you.
- Give them time to heal by empathizing and not forcing the healing process. Encourage the survivor to come back to their normal routine. Help them express their feelings and heal through journaling, art, and other creative activities. If required refer them to a mental health professional.

Exercises: Ending and recovering from violence

Here are two simple exercises to recover and begin the journey of recovery. Exercise 1: Create your healing plan

Write down the plan as per the below three steps: Reflect, replace, and reclaim.

	<p>Reflect</p> <p>Reflect on how you deal with stress by examining your coping strategies and whether it is helpful or not. Identify your self-care need and make an action plan to help you during stressful times.</p>
	<p>Replace</p> <p>Replace negative coping strategies with alternate positive strategies</p>
	<p>Reclaim</p> <p>Reclaim places, activities and/or feelings that you have not attempted since the incident. At any of this, if required, seek professional support.</p>

Exercise 2: Dealing with Loss and Sadness

Some families may experience death of a family member due to COVID 19 Pandemic or due to other causes, or you may no longer be in touch with certain persons due to various reasons. Loss or sadness is a natural response and a personal experience. Everyone reacts and copes differently to loss. There is no correct or incorrect way to grief — but there are healthy ways to cope with the sadness. Family and friends are a major support to overcome from loss and deal with sadness. There are five stages of response to a loss or sadness.

	<p><u>Denial</u>: —“This can’t be happening to me.”</p>
	<p><u>Anger</u>: —“Why is this happening? Who is to blame?”</p>
	<p><u>Bargaining</u>: —“Make this not happen, and in return I will.”</p>
	<p><u>Depression</u>: —“I’m too sad to do anything.”</p>
	<p><u>Acceptance</u>: —“I’m at peace with what happened.”</p>

With this context, in this exercise, do the following.

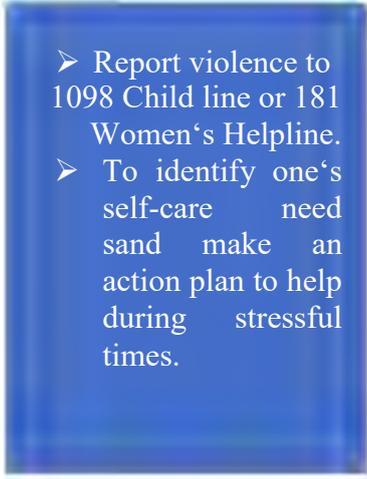
1. Think of a normal day in your life. List any five people whom you interact with during the course of the day (you can pick just one person from your family while others should not be your family members).

2. Just imagine what it would be like if they are absent for a few days from your life.

This small exercise will help you understand the worth of people around you. So, what are you waiting for? Go and thank them today for the value that their presence has added to your life.

Notes for group members

- Report violence to 1098 Child line or 181 Women's Helpline.
- To create safe and supportive environment, it is important to understand our basic psycho-social needs.
- It is important to deal with impact of violence and the stress induced by it by examining the coping strategies and whether it is helpful or not, as explained in last chapter.
- To identify one's self-care needs and make an action plan to help during stressful times.
- The five stages of response to a loss or sadness: Denial, Anger, Bargaining, Depression and Acceptance
- **REMEMBER**

- 
- Report violence to 1098 Child line or 181 Women's Helpline.
 - To identify one's self-care need and make an action plan to help during stressful times.

END OF THE MEETING:

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Understand basic human rights for empowering women against violence
- Disseminate messages on gender-based violence, to reduce discrimination and inequality
- Note number of participants having taken steps against gender-based violence and how.

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 8: IMPORTANCE OF FIRST 1000 DAYS OF LIFE AND IYCF

The 1,000 days between a woman's pregnancy and her child's 2nd birthday offer a unique window of opportunity to build healthier and more prosperous futures. The first 1,000 days are a time of tremendous potential and enormous vulnerability. How well or how poorly mothers and children are nourished and cared for during this time has a profound impact on a child's ability to grow, learn and thrive. This is because the first 1,000 days are when a child's brain begins to grow and develop and when the foundations for their lifelong health are built. Research in the fields of neuroscience, biology and early childhood development provide powerful insights into how nutrition, relationships, and environments in the 1,000 days between a woman's pregnancy and a child's 2nd birthday shape future outcomes.

Nutrition, in particular, plays a foundational role in a child's development and her country's ability to prosper. Poor nutrition in the first 1,000 days can cause irreversible damage to a child's growing brain, affecting her ability to do well in school and earn a good living and making it harder for a child and her family to rise out of poverty. It can also set the stage for later obesity, diabetes, and other chronic diseases which can lead to a lifetime of health problems. Studies show that countries that fail to invest in the well-being of women and children in the first 1,000 days lose billions of dollars to lower economic productivity and higher health costs. It is why several of the world's leading economists have called for greater investments in the nutrition and well-being of mothers, babies, and toddlers as a way to create brighter and more prosperous futures for us all.

Objective of the meeting	Sensitize participants on importance of first 1000 days and correct IYCF practices
Process	Discussion
Required Equipment	Paper, pen, 1 small and medium katori, glass, cup, spoon for quantity demonstration and register where work plan progress will be noted down
Time duration	1 hour 30 minutes

Having explained the background of importance of 1000 days, the facilitator will disseminate messages for breastfeeding and complementary feeding to ensure correct IYCF practices.

Encourage the woman that breastfeeding should begin within 1 hour of child birth and the baby should be kept in the lap of the mother so that its body will be warm and it will not lead to hypothermia. By beginning breastfeeding within 1 hour of child birth, it helps the placenta come out soon and there is less bleeding after delivery.

Discuss the proper way of breastfeeding (when the mother breastfeeds her baby, she should be careful of the following aspects and advise her accordingly).

Position- The baby's head and body should be straight and the baby's face should be toward its mother. It should be close to its mother and the mother will have to manage the baby completely.

Attachment- The baby should be held close to the mother's breast and its mouth should be kept open. The lower lip should be open more toward outside and the areola should be visible more toward top than bottom. Show her a picture of a mother having interest toward her breast and help her to understand the difference between right and wrong attachment of baby.

(Explain very well that if the baby is able to take breast milk properly and takes the nipple in its mouth properly, then it can suck milk easily and with pause.

Key messages for breastfeeding mothers:

- Breast feeding should be initiated immediately after child birth i.e., within the first hour of birth
- During the first six months a child should be given only breast milk as breast milk provides all the food and water that the baby needs during the first six months
- Nothing else, not even water should be given to a baby for first 6 months
- Giving baby anything else will cause him/her to suckle less and will reduce the amount of breast milk that is produced.
- Water, other liquids and foods can make the baby sick. Exclusive breastfeeding for the first 6 months protects your baby from many illnesses, such as diarrhoea and respiratory infections.
- When exclusively breastfeeding is done to a baby during the first 6 months, the mother is protected from another pregnancy.
- Mixed feeding should be discouraged. Mixed feeding means feeding your baby both breast milk and any other foods or liquids, including infant formula, animal milks, or water. Mixed feeding before 6 months can damage your baby's stomach. Mixed feeding increases the chances that your baby will suffer from illnesses such as diarrhoea and pneumonia, and from malnutrition. Giving your baby foods or any kind of liquids other than breast milk, including infant formula, animal milks, or water before 6 months can damage your baby's stomach. This reduces the protection that exclusive breastfeeding gives, and all of the benefits that your baby gets from your breast milk.
- A child should be breast fed on demand and breast feeding should be done in both day and night i.e., 8-12 times a day to build up the milk supply as more suckling (with good attachment) makes more breast milk.
- A baby should be allowed to finish one breast before offering the other. Switching back and forth from one breast to the other prevents the baby from getting the nutritious 'hind milk'. The 'fore milk' has more water and satisfies the baby's thirst. The 'hind milk' has more fat and satisfies your baby's hunger. If the baby is ill or sleepy, wake him or her to offer the breast often.

Breast feeding position:

1. The four key points about baby's position are: straight, facing the breast, close, and supported

2. The baby's body should be straight, not bent or twisted, but with the head slightly back
3. The baby's body should be facing the breast not held flat to mother's chest or abdomen, and he or she should be able to look up into your face
4. The baby should be close to mother. She should support the baby's whole body, not just the neck and shoulders, with your hand and forearm
5. Good attachment helps to ensure that baby suckles well and helps to produce a good supply of breast milk. Good attachment helps to prevent sore and cracked nipples.
6. After baby releases one breast offer him/her the other breast. This will ensure that the baby stimulates your milk production in both breasts, and also gets the most nutritious and satisfying milk.

(Source: The Community Infant and Young Child Feeding Counselling Package, The key message booklet by UNICEF)

Breastfeeding frequently if the baby is ill

Q. Ask the mother and the caretaker of the baby: Is the mother breastfeeding the baby of less than 6 months even after the baby falling ill? Is there any situation when mother has stopped breastfeeding? Does she feel less or more milk when the baby is ill? Does the mother or the caretaker feed the baby of less than 6 months any other liquid or food during illness? Ask regarding the baby's food if the baby is weak or of less weight.

A weak baby feels hungry most of the time, but more energy is required to counter that weakness. During loose motions, the baby needs to drink more and more breast milk by which it can fight with the illness and it will not lose weight. A sick baby feels better after drinking breast milk. If the baby is so weak that it cannot drink milk, then take out milk from mother's breast and feed the baby with cup or spoon. In this way, milk will be produced in mother's breast and the situation of blockage of milk will not occur.

e. Teach the mother how to squeeze out milk from breast using hand.

Discuss: Advise the mother regarding the procedure of taking out milk from breast so that the baby will always obtain mother's milk, even if outside, it can drink mother's milk.

- Wash the utensil and hand properly with soap. Boil those utensils in hot water
- Rub the breast with a semi hot cloth and by cleaning cloth, milk comes out easily.
- Press the areola (the pigmented skin surrounding the nipple) in one hand and hold the breast downward in another hand.
- First press the chest and then press the areola and milk will come out in drops. Do not rub areola because milk stops to come out.
- Do not rub the skin because there is possibility of crack on skin. Move your finger slowly around areola and milk will start oozing.

- Milk will come out for 3-4 minutes from one breast, and then take out milk from the other breast. In this way, take out milk from one breast after another (nearly 20-30 minutes)
- Keep the milk bowl in a cool place and cover it. It can be kept for 6-8 hours properly. Boil milk before feeding the baby.

Key messages for mothers with children up to 2 years of age:

IYCF:

1. Early Initiation of Breastfeeding: Immediately after birth, within one hour
2. Exclusive breastfeeding for the first 6 months of life (No other fluids or foods, not even water)
3. Timely introduction of complementary food at completion of six months, maintaining adequate diet and dietary diversity along with continued breastfeeding.
4. Breastfeeding should be continued even if mother is ill (viral, diarrhea, COVID, HIV/AIDS, cancer, etc.)
5. Make the meal colorful, interesting and healthy even with limited resources as mentioned above.

During the first 6 months

1. Breast milk provides all the food and water for the new born child.
2. Do not give anything else, not even water. Even during very hot weather, breast milk will satisfy baby's thirst.
3. Water, other liquids and foods can make the baby sick.
4. Exclusive breastfeeding means feeding the baby ONLY breast milk for the first 6 months (first 180 days).

Complementary feeding

1. Starting at 181 days, baby needs other foods in addition to breast milk. Breastfeed first before giving other foods.
2. Should provide sufficient protein, energy and micronutrient. Active and Responsive feeding methods should be used and proper frequency according to age. Food should be hygienically prepared, fed and stored.
3. Use a separate plate to feed the baby to make sure he or she eats all the food given.
4. Feed the child minimum 4 food groups from seven food groups mentioned below, in a day (24 hour). Please remember these foods should be local, seasonal, traditional and culturally acceptable.
 - a. Cereals, grains, roots and tubers such as Rice, wheat, *Koni dhan*, *kumol saul*, *sira*, *muri*, *akhoi*, *pithaguri*, Potato, sweet potato, *kaathalu* etc.
 - b. Pulses, legumes and nuts such as All dals including *matimah*, *mogumah*, *kolamah*, Chana, Moong, Masoor, Rahar, Rajma, peanuts and other dry fruits etc.
 - c. Vitamin A rich fruits and vegetables such as those fruits and vegetables that are orange and yellow from inside eg. Mango, Orange, Carrot, Pumpkin, jack fruit etc.
 - d. Other fruits and vegetables such as *Palenk*, *Methi*, *Jatilau*, *kobi*, *potol*, *bengena*, *sojina*, *amlakhi*, guava, *banana* etc.
 - e. Milk and milk products such as Milk, Curd, paneer, butter, ghee etc.

- f. Animal meat such as Goat meat, chicken, pig, fish, *polu* (silk worm), *kekura* (crab), *kusia* etc.
- g. Egg

Complementary feeding from 6-8 months

1. Texture: Start with thick porridge, well mashed foods
2. Frequency: 2-3 meals per day plus frequent breastfeeding
3. Average amount of food in each meal: Starting with 2-3 table spoonsful per feed, increasing gradually to half katori

The facilitator will demonstrate size of standard katori, cup, table spoon and tea spoon referring to images as below-

1 small bowl (bati)=50gms



1 cup=100mL



1 tea spoon (tsp) =5gms

1 table spoon (tbsp) =15gms



1 glass = 250mL



Complementary feeding from 9-11 months

1. Texture: Finely chopped or mashed foods and foods that baby can pick up
2. Frequency: 3-4 meals along with breastfeeding. Snack should be offered depending on the appetite
3. Average amount of food in each meal: half katori to 3/4th Katori

Complementary feeding from 12-23 months

1. Texture: Family Food
2. Frequency: 3-4 meals along with breast feeding. Snack should be offered depending on the appetite
3. Average amount of food in each meal= 1 Katori

Role of husbands and family members

Husbands and other family members lay a vital role in optimum feeding of the child. The mother is breastfeeding and undergoing several physical and psychological changes during this phase. They should support and encourage her in taking proper rest, care and diet. Along with this, they should also help in active complimentary feeding of the child being patient and empathetic.

END OF THE MEETING:

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Understand importance of 1000 days of life and correct IYCF practices.
- Disseminate messages on proper maternal and child nutrition during 1000 days of life to all pregnant and lactating women in the community.

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 9: FAMILY PLANNING

Objective of the meeting	Sensitize participants on various methods of family planning, its merits and demerits
Process	Play demonstration and discussion
Required Equipment	Register where work plan progress will be noted down, acting, locally available contraceptive ways, pen and notepad
Time duration	1 hour 30 minutes

Meeting Process

Total meeting is divided into four types

1. Review of the previous meeting
2. Discussion on working method progress
3. A play on an importance of family planning, and discussion on locally available different contraceptive ways merits and demerits
4. Discussion on different government schemes and programs related to family planning with grassroots level workers

Review of the previous meeting and discussion on working method progress

As per the rule of the booklet, the facilitator has to repeat briefly about the previous meeting and review the working method implementation progress. Then she will discuss on today's meeting topic.

Discussion on different ways of Family planning merits and demerits with its side effects

There will be a play demonstration for discussion on different ways of family planning, selection of right ways, women rights and way-out place. For this play the facilitator will choose five or six members from the team and before the meeting they need to practice the play. On the day of meeting, they will be there. The play will be demonstrated from the starting of the meeting and after that member will start discussion.

Play: Importance of Family Planning

Scene (two friends meeting each other and exchange greetings saying namaskar. One friend name is Sohan and other one name is Budhan)

Sohan: Now are married then what are thinking next

Budhan: Ohh brother what I will think, after marriage kids will come. I am wanted to have 8 to10 babies. Once they grow up will help me in work

Sohan: Don't do it brother Budhan. In today's costly time one or two kids are enough, whether it's a

son or daughter. You will realize in future if you have more children

Budhan: Go...go...don't give any lecture tome. I know you have problem with my development

(After some years Burhan's house scene)

First child: Father I am very hungry, give me some food to eat

Budhan (in an angry mood): go, ask your mother Second child: Father give me a toy like Rani has

Third Child: Father bought me a new pant Budhan: Ok. I will bring everything in the evening

Fourth Child: do my school admission in city school. I don't want to go government school

Budhan (shouting tone): keep quite everyone. You all have eaten my mind. I need this that. No one is thinking of my situation and look at their mother she is always in bed. Sometimes she feels weak, sometimes she has some health issues etc. wife' streatment, children expenditure, studying them what to do.Icannot understand anything

All the children going out after being scared. Budhan is sitting in a corner in a depressed mood and quietly crying.

Budhan: there is no fault of others in it, it is my fault. If I did not do these many children then I cannot see this situation now. Neither I am providing them enough food or provide them good education. Again, I am going to be a baby soon. What to do and nothing is coming into my mind.

(At this time Budhan's friend Sohan is coming)

Sohan: Budhan, what's up? Seeing you after along time. Are you in any tension? Is there any problem?

Budhan: what to tell you brother. If I listen to you that day, then I don't see this kind of situation today. After marriage I have babies after babies. Today our family is big now and for each expenditure I need to think.

Sohan: Budhan don't worry. Till it's not late. There will be a meeting in our village today they will discusson family planning. Let's go there and you will definitely get some solution there.

Budhan: Yes, you are right. By going there, I can for get my problems for sometime.

(Meeting Scene)

Sohan and Budhan: today we will discuss on family planning (two friends will sit with the participants where information will be given on different methods and way son family planning available in government centers)

Contraceptive Pill: Mala D / Mala N

These pills are easily available in ANM, Primary health center and all government hospitals. Contact ANM, Asha Didi and Angawadi workers to get these pills.

Direction to take contraceptive pills:

- You can start taking these pills from the 5th Day of your period and take this pill on daily basis on particular time just after your dinner or lunch.
- If you forget to take pill, then take it when you remember.
- Don't forget to take the pill even if you don't have physical relation with your partner.
- If you missed to take pill and it crossed more than 12 hours, then take the pill as soon as possible and use other mode of contraceptive like condom for next one week.
- In one strip there are 21 white pill and seven red pills. Take the white pills for first three weeks and red pills on fourth week. Your menstrual cycle will start while taking the red pill.
- It may be noted here that on the very next day of taking the last red pill of the strip, start the next course of the strip. Repeat this until you want baby.
- Consult the doctor for taking the medicine for the first time.

Be attentive while taking medicines:

- If you missed your period during medication then you should continue this medicine for the next month.
- If you are not taking the medicines properly then examine the pregnancy immediately
- If you missed your period for two months consequently then do not forget to test your pregnancy.

Side effects:

- You will face some dizziness, vomit for few days. This problem must be stopped after having the medicines for three months. If you are suffering the same after three months, then it is advised to change the medicine. This medicine should be taken before sleep or after the dinner. If you missed your period or having excessive bleeding during periods then it is advisable to consult the doctor.
- There are no side effects among many women after having the contraceptive pills. If you are facing problems like chest pain, breathing problem, blood in the cough, severe headache, pain in your foot then consult the doctor.

Copper T

Copper T is a small plastic and soft which is made of metal. It will be kept in the uterus by the doctor. In this method, one or two strings will hang in the uterus. A user can know whether Copper T is in right place or not. By stretching this string Copper T will be removed.

Copper T (380A) – this is available in government hospital in free of cost. It works for ten years and ANM Copper T can be used.

Merits:

- There is no hindrance for sexual relationship
- There are no side effects on the health
- It works immediately you used and after removing this you will be able to pregnant again
- It is available at district hospital and primary health centers in free of cost after delivery
- There is no harm on it and no age-related issues on it

Demerits and other indirect Effects.

- Some women complains that during monthly menstruation they have more bleeding. But it declines after some months and it is not protected from infections happened through private part.
- Sometimes Copper T may be removed after two or three months from the body. That's why you need to check repeatedly whether its properly placed or not
- Due to Copper T usage, uterus may be starched slightly so there is a little bit pain for that which automatically reduced in a weeks' time. If the pain not reduced then consult with the doctor.
- By using this some women have chances of bleeding from vagina which reduced in a month time. If there is bleeding with pain, then immediately consult with the doctor.

Condom / Nirodh

This is the only temporary way for men. Its use is very simple and there is no indirect side effect of it. It is available in all the places and its use method written in the packet front. It is not only works as contraceptive but also refrain from sexually transmitted diseases. It is available with Anganwadi worker, ASHA and ANM and primary health centers. Family planning operation by men is a very simple and impactful solution.

END OF THE MEETING:

The facilitateor will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Understand importance of family planning and various its methods
- Disseminate messages on family planning methods, merits and demerits to all women in reproductive age group 15-49 years, which includes- newly-wed couples, pregnant and lactating women in the community.

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 10: INTRODUCTION TO SOCIAL AND BEHAVIOUR CHANGE COMMUNICATION (SBCC)

Objective of the meeting	To sensitize participants on – <ul style="list-style-type: none"> • key factors about human behavior • characteristics of SBCC • essential steps to communication planning • different levels and cross-cutting factors of the socio-ecological model • strategies and overarching principles of SBCC
Process	Play demonstration and discussion
Required Equipment	Register, acting, locally available contraceptive ways, pen and notepad

Learning objectives

By the end of this session, participants will be able to

- describe five key factors about human behaviour
- describe why SBCC is important for our work

Instructions

1. Explain that we will now review the definition of SBCC and describe the approach's evolution from Information, Education, and Communication (IEC).
2.  Refer to a pre-populated flip chart page or PowerPoint slide and provide the definition of SBCC.

What is SBCC?

SBCC is the systematic application of interactive, theory-based and research-driven communication processes and strategies to address change at:

- Individual
- community, and
- societal levels



Explain that when we talk about SBCC we are referring to a framework that addresses both *social change* and *behavior change*. Use a pre-populated flip chart page or PowerPoint slide to present these definitions.

<p>Social Change includes changes in</p> <ul style="list-style-type: none"> • social order and institutions • social behaviours • norms 	<p>Behaviour Change includes changes in:</p> <ul style="list-style-type: none"> • human behaviour
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#Record on the Flip Chart

Why social change AND behavior change matter

3.  Refer to a pre-populated flip chart page or PowerPoint slide and explain that today we are going to discuss how to address both social and behavior change through an SBCC approach. In doing so, we are first going to describe the approach’s evolution from IEC to behavior change communication (BCC) to SBCC.

IEC to BCC to SBCC: An Evolution

SBCC has evolved from IEC and health education

- Earlier models used a linear “expert–learner” or “sender–receiver” paradigm to transfer information
- The focus then shifted to BCC, which emphasizes analysis of behaviours and determinants to affect changes in
 - › knowledge
 - › attitudes
 - › practices
- Now, our focus is SBCC, which employs a more comprehensive approach

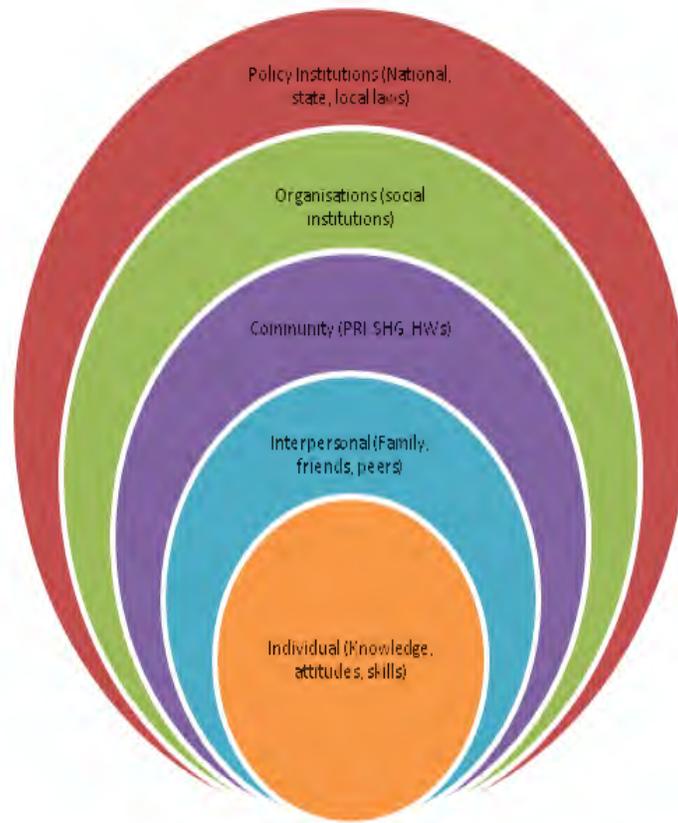
4.  Revisit the definition of SBCC with participants and also explain to participants that SBCC has three distinct characteristics that we will cover in this introductory module. Turn to a pre-populated flip chart page or PowerPoint side.

What is SBCC?

SBCC is the systematic application of interactive, theory-based and research-driven communication processes and strategies to address change at *individual, community, and societal levels*.

SBCC is a framework that has 3 distinct characteristics.

- SBCC is a **process**.
- SBCC uses a **socio-ecological model**.
- SBCC operates through three **key strategies**.



Explain that:

- A socio-ecological model examines layers of influence to provide insight on the causes of problems (e.g., tobacco use among youth) in order to find possibilities for change.
- The model helps us to look at ways in which personal and environmental factors are inter-related and how they influence each other.

5.



Turn to a pre-populated flip chart page showing the socio-ecological model or PowerPoint slide. Explain that the socio-ecological model has two parts:

- Levels of Analysis: which are represented on the model as rings
- Cross-Cutting Factors: which are represented on the model in the triangle

Socio ecological model (Source-UNICEF)

The socio-ecological approach emphasizes that individuals are nested within families, communities, organizations, societies and the global context, and that these varied loci of existence shape practices. This approach allows us to recognize factors at each of the levels within an individual's environment and encourages us to integrate system-wide interventions with person-focused efforts to modify behaviour and/ or environments. This socio-ecological framework helps to identify the barriers and facilitator for the identified behaviours and classify them at their level of existence

within the audience environment. Strategic use of communication approaches at each level promotes Social and Behaviour Change Communication.

Facilitator's **NOTE**

Reinforce correct answers and respectfully clarify or lead the group to clarify incorrect examples. Examples of correct responses include:

- **the individual**, who is the person, or the self in relation to the program
- **interpersonal**, which includes partners, family, or peers
- **community**, which includes leaders, SHGs and health providers

- ❖ Explain that the rings/layers of the model and the cross-cutting factors can be used in greater depth to further analyse the situation. Explain to participants that the rings and cross-cutting factors of the socio-ecological model that may be most important to look at include:
 - community, which includes services and products
 - enabling environment, which includes policies, laws, religion, environment
 - information
 - motivation
 - ability to act
 - norms
- ❖ For each question posed, ask participants to brainstorm responses using the problem of child morbidity/mortality due to diarrhoea/malnutrition/anaemia among adolescent girls & women, etc.

facilitator's note

For responses related to the problem of child morbidity/mortality due to diarrhea in the context of:

Community, Services, and Products, listen for and note responses such as:

- lack of safe drinking water
- access to soap, running water, water treatment product
- access to oral rehydration solution, pediatric zinc
- access to medical services (including cost)

The enabling environment, listen for and note responses such as:

- contaminated water sources
- lack of sanitation and hygiene practices and regulation and waste disposal

Information, listen for and note responses such as:

- knowledge of how hygiene, sanitation, and safe drinking water are linked
- with diarrhea prevention and treatment of childhood diarrhea (ORS, zinc)
- knowledge of how to treat water, critical times for hand washing, proper
- hand washing techniques

Motivation, listen for and note responses such as:

- love and caring for children
- low risk perception related to diarrhea
- desire for a healthy, happy family
- fears about side effects of water treatment products
- lack of time for boiling water

Ability to Act, listen for and note responses such as:

- cost of water treatment (time/money), soap, and other products
- cost of accessing health services
- lack of confidence in ability to prevent diarrhea in home
- poor distribution of ORS and zinc supplements at grass-roots levels
- lack of availability of health facilities in hard-to-reach areas

Norms, listen for and note responses such as:

- gender norms around household responsibilities and decision making, including financial oversight
- norms related to hand washing, sanitation, water treatment
- traditional beliefs related to course of treatment or source of treatment for children with diarrhea

❖ Turn to Pre-Populated Flip Chart Pages with the Content Below or PowerPoint Slide

Context Analysis: Community-, Services-, and Product-related Questions

- What community assets can support or impede change?
- For example: if physical examinations are not happening during Village Health and Nutrition days (VHND) because of lack of privacy, can the Panchayat help to shift VHND sites from the Anganwadi Centre to a school with an empty classroom?
- Describe VHND in brief.
- What services and products are accessible at the community?
- What is the quality of services and products available?
- Is transport available for people to access these services?
- What are the costs involved in accessing these services? (think monetary and nonmonetary [e.g. time])?

- ❖ **(30 minutes)** Give participants 30 minutes to conduct their context analyses. Instruct them to start with the self (person directly affected) and, time permitting, do the analysis for a person who directly affects that person (e.g., husband, wife, mother-in-law). After about 20 minutes, have participants transfer their work to a flip chart.
- ❖ **(5 minutes)** Ask participants to hang up their context analyses. Instruct participants to spend 5 minutes moving around the room and viewing each other's analyses. Using sticky notes, have participants write down any feedback and post it next to the relevant analysis for the group's consideration and incorporation in their analyses.
- ❖ **(5 minutes)** Give groups an additional 5 minutes to review any feedback they received and to incorporate it into their analyses.

ROLE OF SHGs IN PROMOTING SBCC FOR FNHW

FNHW interventions are expected to be implemented by State Rural Livelihood Missions mainly through convergence with relevant Government Departments for realization of entitlements; and behaviour change at the individual / family / community level through consistent capacity building efforts (Table 1).

FNHW Interventions: DAY-NRLM

	ENTITLEMENT	BEHAVIOURAL CHANGE
FOOD	Access to Public Distribution System	Cultivation & consumption of vegetable and fruits diversifying diets
NUTRITION	Take-home rations from ICDS and MDM	Appropriate diets for mothers, infants, adolescents and the elderly
HEALTH	Access to services during VHNDs Access to maternity benefits and JSSK Access to services for the elderly and the PwDs Access to Health / Life / Accident Insurance	Appropriate health care practices for pregnant ladies, infants and young children, adolescents, the elderly and the People with Different Abilities Promotion of health savings at SHG Level
WASH	Access to sanitary toilets Access to Solid and Liquid Waste Management Systems	Use of sanitary toilets Hand Washing practices Safe waste management practices at household level

Types of Communication Channels that can be adopted by SHGs

Channel Type: Interpersonal

Examples Activities and Materials	
<i>Activities:</i> one-to-one communication, such as provider to client, peer to peer, training and skills-building in small groups	<i>Materials:</i> flip charts, counselling cards, training curricula, discussion cubes, role play cards
Potential Benefits	Cost and Effort Estimates
<ul style="list-style-type: none"> • Tailored communication • Interactive • Allows for greater intensity • Able to unpack complex information • Provides personalized assistance • Can build behavioural skills • Increases self-efficacy 	<p>Though interpersonal communication activities are not expensive, they are not one-off investments. They need to be continuously supported with supervision and incentives to maintain the quality of the intervention.</p>

Channel Type: Mid-Media

Examples Activities and Materials	
<i>Activities:</i> community meetings, small group meetings, drama, cultural events	<i>Materials:</i> bulletin boards, temple and mosque leaflets, posters, scripts for drama, interactive discussions
Potential Benefits	Cost and Effort Estimates
<ul style="list-style-type: none"> • Extensive reach • Efficient and consistent repetition of message • Can reinforce and extend IPC activities • Able to discuss sensitive issues • Can respond immediately to the individual/ group • May have more credibility • Can motivate, influence, and support 	<p>Mass media are expensive, but their wide reach often makes the cost per person minimal.</p>

END OF THE MEETING:

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Describe five key factors about human behaviour
- Understand different types of communication channels and role of SHGs in promoting SBCC for FNHW.

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

Objective of the meeting	Sensitize the participants on counseling tips, instructions according to various target groups and existing government schemes
Process	Play demonstration and discussion
Required Equipment	Register where work plan progress will be noted down, pen and notepad
Time duration	1 hour 30 minutes

MEETING 11: COUNSELLING DURING HOME VISITS

In this session, the facilitator will encourage CLFs and SHG women to accompany ASHAs and AWWs during few of their home visits and get to know their roles and counseling messages provided. Apart from this, SHG women can also visit houses of vulnerable groups- pregnant and lactating women and adolescents during and after their regular meetings for disseminating messages learnt in sessions.

Some instructions for counselling

Ask: Ask positive questions using simple language. Console the newly-married women and mothers in such a way that whatever they speak, you can understand them and they should have trust on you so that they will understand your instructions without hesitation.

Give counselling: (Do not force them): While counselling them, tell them that specific matter which they can follow practically.



Agree with this:

Give them useful oral instructions. Come face to face while counselling.

If anything comes between two persons, remove those. Have patience and give them time.

Ask questions and discuss on important matters minutely and clearly. Reply with such expressions as if you feel those things.

Listen to them.

Whatever you understood from their words, let them listen to it again.

Agree with this:

(Looking at eyes) Listen to the words of the newly-married women/pregnant women/family members attentively and encourage them to tell you about their problems.

Show them compassion, do not judge their words as right or wrong.

The art of building trust and giving assistance

Consent with them as the way they think and feel.

Listen to their problems attentively before rectifying any wrong information or words. The trust improves in this way.

Praise their right behaviour and habits and reward them. Counsel them which they can utilize.

Give them one or two advices, do not give them order.

While listening to the women and giving them different alternative options and advice, ask them which advice they liked the most, and encouraging them to have faith on their own decisions are called counselling tactics.

First step: Ask, listen and observe.

Greet them and build up their trust on you. Explain the purpose of your visit to them. Ask them regarding their problems.

Encourage them for all their good habits.

Second step: Analyse: Identify the problems and in case there are multiple problems, then determine which problems should be given preference.

Identify the problems and find out their reasons. Analyse the problems.

Give answers to their questions.

Third step: (Problem solving): Discuss their problems, give them some important information, and give your consent to the problems which can be solved.

Discuss on alternatives for solving the problems.

Explain the alternatives to them and help them in selecting appropriate alternatives.

Wherever technical support is required or any risk behaviour is identified in community, the SHG should refer/contact their respective service providers- ANM/ASHA/AWW.

The role and importance of facilitators during home-visits

1. Accompany ASHA and AWWs during their scheduled visits to the houses of the identified adolescent girls, newly-married women, pregnant women, mothers of 2-years-old children, and the caretakers at least once in a month for counselling.
2. Encourage organizational delivery in the community with the help of ASHA workers.
3. Support service providers in identifying the danger associated with mother, new-born, and child health and notice the symptoms of anaemia.
4. To visit the houses of vulnerable target groups- registered newly-married women, women in pre-pregnant stage, mothers of 2-years-old children, and also for nutrition-related advice to them and family planning services as per learnings from their meetings.
5. To advise them on nutrition, pre-pregnancy care, and preparation for child birth by identifying mothers in dangerous situation and inform ANM/ASHA/AWW.
6. To encourage all the women to participate in women-group meetings, VHSNCs and gram sabhas in their villages.
7. To encourage all the women in dangerous situation to utilize the government health schemes, such as benefitting from *Janani suraksha yojana*, etc.
8. To advise on hand-wash habit, maintenance of healthy home environment, ensuring the safety of food and water, and safe disposal of faeces.
9. To maintain the registration book regularly.

Home-visit to the women in pre-pregnancy state (newly-married)

The facilitator should congratulate the newly-married woman and the family members and introduce herself.

a. Advising on nutrition and anemia concerning the woman before pregnancy

Q. When did her marriage take place? Does she face any problem now?

If any woman is suffering from excessive or insufficient bleeding during menstruation, stomach painful to touch, irregular menstruation, weakness, etc. ask her not to panic. But if she has serious problems such as excessive bleeding, excessive painful stomach, more weakness, anemia or cold-fever/Malaria, the facilitator should advise her to go to the health centre.

Q. Has she taken any advice earlier regarding any of her problems? Is she now able to know something in this regard?

The facilitator should listen to the woman and according to the situation, she should discuss with her and convince her to send her for general examination or to go to the ANM under VHND for advice.

Ask questions: Has she suffered from anemia or has any doctor or nurse informed her having haemoglobin deficiency? Ask her to show if she has any report.

(**See:** Anemia and symptoms of swellings: white eye, nail, palm and tongue looking pale, with swelling face)

After seeing symptoms of anemia: As per rules, encourage the woman to take iron tablet and food with more iron, and along with this, persuade her to eat more tomato or lemon (vitamin-C) by which the body can absorb iron properly. Tell her to be habituated to take iron tablet (show her iron tablet) and take tablet after food.

(Tell her that when we walk with bare foot, there are certain types of germs which enter our body and become the cause for anemia. So, encourage her to take Anthelmintic drug (show her Albendazole tablet) and persuade her to use slippers always.

If the symptoms of anemia are found: Encourage the woman to meet ANM or go to health centre for haemoglobin test and note down this information in your note book.

b. Soon advice that woman to stop conceiving

Q. Did you have any case of conception or miscarriage after marriage?

If no, tell her about the contraceptive method (show her Mala-N tablet) which can used to stop conception soon and tell her the danger of conception at that stage.

If yes, is she obtaining enough care? Has she received any treatment in that condition? Tell her to meet ANM or doctor for appropriate treatment.

c. Advising the woman regarding her food

Q. Ask her how many times generally she takes her meals and what she eats in her meals (especially, masoor dal, green vegetables, yellow fruits, other vegetables, fish, meat, oil, except her main food). Advise her regarding nutrition during pre-pregnancy stage.

Proposed food during pre-pregnancy stage

- Consume nutritious different types of food every day: vegetables, fish, egg, meat, fruits, etc. Eat at least 3 whole meals in a day- If there is vomiting, eat 5- or 6-times small meals.
- Drink more water and refrain from taking tea and other harmful substances. In this way, more nutrients can be absorbed in body. Eat more vitamin-C food, such as lemon, orange, tomato, etc.
- Consume iodized salt.

Home-visit during pregnancy

The facilitator should always congratulate the pregnant woman and her family members and introduce herself.

If yes- Has she done anything for her benefit and has she gone for malaria test? If yes, what kind of attempt she has taken? If yes, then encourage her to take the full dose of medicine as prescribed by the doctor. If she has not gone for treatment, send her to ANM or tell her to go to health centre for blood test and note down this information in your note book.

Note: For more details on ANC services, refer meeting 3 on Maternal nutrition.

Advice the mother regarding post-natal care

(After child delivery, the period of 6 weeks or 42 days is known as Puerperium stage. During this period, the woman's body comes back to her normal state and adapts how to grow along with the baby. After pregnancy and child delivery, the body comes back to normal condition within this time span. Explain very well that there are some special requirements for the mother during this period. Discuss the following matters with the mother and the other members of the family:

Rest: The woman requires rest after child delivery. This makes her healthy and strong.

Mental cooperation: The woman feels weak during this period. She needs cooperation from the family, love, care and cooperation from her husband, and also cooperation from her relatives.

Cleanliness: In this condition, the woman is prone to various infections. She requires a room with ventilation and sun light, clean bed sheet, bed and clean cloth. The use of clean cloth or sanitary napkin is essential. Instead of taking bath according to rituals, it is better to take bath daily, and it is necessary to wash her reproductive organs and breasts.

If the delivery is severely painful, then sitting in salty lukewarm water alleviates her pain and this also helps in keeping her reproductive organs clean.

Nutritious food: As the nutritious food was required during pregnancy, it is also essential to eat such kind of food. If she breastfeeds her baby, she has to eat body-repairing food, such as beans, pulses, milk, egg, and meat. She should avoid excess cold or hot food. The food which protects her

body includes green vegetables and fruits and she should drink plenty of water. Every time she breastfeeds her baby, she should take some liquid intake (6-8 glass every day).

Additional Iron and Folic Acid: The breastfeeding mother requires iron and folic acid more than how much she obtains from her normal food. Take iron and folic acid at least for 3 months after child birth with the advice of the doctor, by which there will be no possibility of anaemia. It is not harmful to eat these tablets.

Health check-up: It is essential to meet the doctor for check-up within 6 weeks of child birth. For this, the woman herself has to go to health centre or a health worker should come to her house at regular interval, which is ideal.

Family planning and gap between two children: If the mother becomes pregnant with short period of gap after the previous delivery, it is dangerous for both the mother and the baby. If she does not want to conceive or if she wants to maintain an ideal period of gap, she can follow contraceptive method, which is available in market. If the woman wants to have a longer gap, she can use copper-T, tablet, etc. Likewise, the men can use condom. Generally, contraceptive pills should not be used within 6 months after delivery, and alternative contraceptives can be used. If the family is complete and there is no requirement of child, permanent birth control methods can be applied. Note that abortion is not the alternative of birth control because it is dangerous. It has also been advised to maintain a gap of at least 3 years between the births of two children.

During home visits, the facilitators should discuss the following matters with the mother and the caretaker:

Safe preparation of food, storage and cleanliness

Inform: There is more chance of bacterial infection in cooked meat and other food items. So, it is important to be careful for keeping the food items safely.

Tell: It is necessary to give supplementary food to babies after 6 months. When the woman prepares the supplementary food, her hands should be clean. Likewise, it is also important to prepare food and feed the baby following safety measures. Even encourage the woman to wash hand with soap before serving food. In this way, food can be free from infection and the baby can remain safe from diseases due to this.

Five ways to keep food safely

Keeping clean

- Keep hands clean before cooking and serving food.
- Wash hands with soap after ablutions, after changing the baby's napkin and cleaning faces, and after holding pet animals.
- Keep the kitchen, dining place, and utensils clean.
- Keep the kitchen items away from any insects and animals.

Keep raw and cooked food separately

- Store raw meat and raw eggs separately and away from other food items.

- Cover the cooked food items so that these will not come in contact with raw meat and raw eggs and other raw items.

Boil food properly

- Boil food properly, especially goat and other meat and sea food.
 - Heat food properly before eating. Heat food till it is hot when you touch. When you heat for the second time, stir it from top to bottom.

Store food at safe temperature

- Do not keep cooked food more than 2 hours in general temperature at home.
- Do not store food for long time.
- Feed fresh food to new-born babies and children.

Use of smoke-free oven

- Use smoke-free oven
- Using such oven, the mother and baby can be safe from the adverse effect of smoke.

Eat clean food and drink clean water

- Use purified water or make water germ-free
- Eat clean and whole meal.
- Wash vegetables and fruits, especially fruits which are eaten raw.

Keeping water purified and safe

First, the facilitator should observe from where the family members or the caretaker is bringing water for the use of the mother and the baby. Advise them how to keep the source of this water safe and away from any infection.

Q. If the woman uses water from well, advise the woman to add chlorine/lime/bleaching powder every year to make it free from infection. If she uses any stream or river water, the facilitator must go there to determine whether the source of water is safe or not. Apart from this, she should advise the woman to discuss this matter with the ASHA worker and rectify this situation during VHSND in the village. If there is no source of water, then they should plan on VHSND or Mamata Diwas for digging a well or bore well.

Discuss: Discuss with the mother or the caretaker regarding the use of clean drinking water, which is not contaminated by bacteria, or animal and human faces. Advise her how she can keep the purified water safely using less-strenuous process, such as boiling water, adding chlorine/lime/bleaching powder, etc. Also, tell her how to keep drinking water safe at home.

Give information: Water obtained from stream or deep well is comparatively safer, but water obtained from river, pond, and open well is not purified. To avoid infection, all purified water should be covered and stored safely, especially drinking water which should be kept clean and safe.

Drinking water can be kept safe if –

The water container should be washed with salt or chlorine and then rinsed with clean water.

The water container should be kept above ground level, away from the reach of children and dust.

The water container should be covered with a clean cloth.

Clean metal utensil, glass or cup can be used to take out water.

Bare hand or dirty glass should not be put into the water container.

Encourage the woman so that she will always attempt to fetch water from the safest source of water in her surroundings, and store in a clean water container. Clean water is essential for good health.

Personal hygiene and cleanliness to avoid infection:

Ask the woman/child caretaker:

- How does she do cleanliness?
- What can be done to avoid infection?
- When and how should she wash her hands?
- What should be done to keep the surrounding clean?

Tell the mother that-

- Various infections and diseases can be avoided by developing some simple and easy cleaning habits.
- Washing hands with soap is the simplest method to avoid infection such as loose motions. Washing hands with soap is essential before eating breakfast, cooking food, eating meals and after cleaning the baby's urine/ faces or changing napkin, doing ablutions, and
- Whenever she thinks necessary.
- Nails should be clean and cut at regular interval.
- All the members of the family should develop cleanliness habit.

Keep the home safe from diseases

- By keeping the living place purified and clean, we can avoid diseases and fatigue.
- Bacteria and germs are present in human and animal faces, garbage and contaminated water and can spread to other places. So, these things should be kept away from living places.
- Various types of disease-causing bacteria and germs are found in contaminated water, such as diarrhoea, worms, vomiting, blood in urine, typhoid, etc.

Discuss some simple methods with the woman by following which disease-causing bacteria and germs can be stopped from spreading

- Keep the household garbage in container with lid and this should be buried or burnt immediately.
- Cover food to avoid house flies on it.
- Flush human faeces (of both elder and children) in toilets.
- Faeces should be thrown or buried far away from house and stream of water.

- Bathroom water should be left to be dumped in a pit away from house so that the surrounding area will not be damp and waterlogged, and this will not allow the infestation of mosquitoes

END OF THE MEETING:

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Disseminate messages to various target groups based on their physiological status and needs
- Handhold ANM/ASHA/AWW for counselling during home visits

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 12: DIETARY DIVERSIFICATION

Humans need a wide range of nutrients to lead a healthy and active life. For providing these nutrients, good nutrition or proper intake of food in relation to the body's dietary needs is required. An adequate, well-balanced diet combined with regular physical activity is a cornerstone of good health. Poor nutrition can lead to reduced immunity, increased susceptibility to disease, impaired physical and mental development, and reduced productivity. This meeting explains the importance of balanced diet and dietary diversification by including all food groups.

Before the meeting, the facilitator will ask all participants to bring raw ingredients, grain, pulses, oil, milk, nuts, sugar, seasonal fruits and vegetables, etc as per the availability.

The objective of the meeting:	To sensitize participants on importance of balanced diet and dietary diversification by including all food groups
Procedure	Discussion and activity
Required Equipment	Register where work plan progress will be noted down, notepad, pen, register, food pyramid demonstration
Time duration	1 hour 30 minutes

The facilitator will define and explain healthy balanced diet as below-

A healthy diet consumed throughout the life-course helps in preventing malnutrition in all its forms as well as wide range of non-communicable diseases (NCDs) and conditions. But rapid urbanization/globalization, increased consumption of processed foods and changing lifestyles has led to a shift in dietary patterns.

People are consuming more foods high in energy, fats, free sugars or salt/sodium, and many do not eat enough fruits, vegetables and dietary fibers such as whole grains. So, these all factors are contributing to an imbalanced eating. A balanced and healthy diet will vary depending on the individual needs (e.g., age, gender, lifestyle, degree of physical activity), cultural context, locally available foods and dietary customs but the basic principles of what constitute a healthy diet remain the same.

A balanced diet is one which contains variety of foods in such quantities and proportion that the need of all nutrients is adequately met for maintaining health, vitality and general wellbeing and makes a small provision for extra nutrients to withstand short duration of leanness.

The major food issues of concern are insufficient/ imbalanced intake of foods/nutrients. One of the most common nutritional problems of public health importance in India are low birth weight, protein energy malnutrition in children, chronic energy deficiency in adults, micronutrient malnutrition and diet related non-communicable diseases. Health and nutrition are the most important contributory factors for human resource development in the country.



Healthy dietary practices begin early in life. Recent evidences indicate that under nutrition in utero may set the pace for diet related chronic diseases in later life. Breastfeeding promotes healthy growth and improves cognitive development, and may have longer-term health benefits, like reducing the risk of becoming overweight or obese and developing NCDs later in life. Since majority of our SHG women are into late adulthood, more focus needs to be given on dietary diversity and clean balanced diet to avoid NCD in later life.

Since a healthy diet consists of different kinds of foods, the emphasis has been shifted from nutrient orientation to the food-based approach. Foods can be categorized according to the function as below-

MAJOR NUTRIENTS	OTHER NUTRIENTS	
ENERGY RICH FOODS (GO FOOD)	Carbohydrates & fats	
	Whole grain cereals, millets	Protein, fibre, minerals, calcium, iron & B-complex vitamins
	Vegetable oils, ghee, butter	Fat soluble vitamins, essential fatty acids
	Nuts and oilseeds	Proteins, vitamins, minerals
	Sugars	Nil
BODY BUILDING FOODS (GROW FOOD)	Proteins	
	Pulses, nuts and oilseeds	B-complex vitamins, invisible fat, fibre
	Milk and Milk products	Calcium, vitamin A, riboflavin, vitamin B12
	Meat, fish, poultry	B-complex vitamins, iron, iodine, fat
PROTECTIVE FOODS (GLOW FOOD)	Vitamins and Minerals	
	Green leafy vegetables	Antioxidants, fibre and other carotenoids
	Other vegetables and fruits	Fibre, sugar and antioxidants
	Eggs, milk and milk products and flesh foods	Protein and fat

An individual should ideally consume three major meals. During pregnancy and lactation, to meet increased nutrient requirements, the woman should consume 3 major nutritious meals and two snacks daily. Try making your plate colourful and diet diversified by including 7 food groups daily-

- carbohydrates,
- proteins,
- fats,
- vitamins & minerals,
- meat & poultry,
- fats & oilseeds and
- milk & milk products.

Carbohydrates, fats and proteins are macronutrients, which are needed in large amounts. Vitamins and minerals constitute the micronutrients and are required in small amounts. These nutrients are necessary for physiological and biochemical processes by which the human body acquires, assimilates and utilizes food to maintain health and activity.

Tips to achieve balanced diets

- ✓ Eat variety of foods to ensure a balanced diet.
- ✓ Include differently coloured, seasonal vegetables and fruits in your diet.
- ✓ Eat foods made with whole grains like whole wheat bread, millets, and brown rice.
- ✓ Include low fat dairy products in the diet.
- ✓ Ensure moderate use of edible oils and animal foods, limit the use of ghee/ butter and avoid Vanaspati/margarine/shortenings.
- ✓ Limit the consumption of processed grains including foods made with white flour (Maida) etc.
- ✓ Minimize the use of processed foods rich in fats, sugar and salt (avoid trans fats).
- ✓ Avoid overeating to prevent overweight and obesity.
- ✓ Drink plenty of water and take beverages in moderation.
- ✓ Exercise regularly and be physically active to maintain ideal body weight.
- ✓ Ensure the use of safe and clean foods.

balanced diet is one which provides all the nutrients in required amounts and proper proportions. It can easily be achieved through a blend of the four basic food groups. The quantities of foods needed to meet the nutrient requirements vary with age, gender, physiological status and physical activity. A balanced diet should provide around 50-60% of total calories from carbohydrates, preferably from complex carbohydrates, about 10-15% from proteins and 20-30% from both visible and invisible fat.



Now the facilitator will ask participants to arrange all locally available ingredients into the food pyramid as shown in image above. He/she will also highlight importance of colorful balanced diet, go, grow and glow food after completion of the activity.

END OF THE MEETING:

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Disseminate messages on go, grow and glow food, importance of balanced diet and dietary diversification to the community
- Practice and promote consumption of healthy balanced diets at household levels

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 13: LOCALLY ACCEPTABLE RECIPES FOR COMPLEMENTARY FEEDING

The objective of the meeting:	To sensitize participants on consuming nutritious diet from locally available and acceptable resources
Procedure	Discussion and activity
Required Equipment	Recipe demonstration, notepad, pen, register
Time duration	1 hour 30 minutes

In this session, the facilitator will share 10 locally available and acceptable recipes for children which will be followed by demonstration activity in next meeting. Before explaining recipes, the facilitator will share 10 basic tips for healthy cooking-

1. Wash your hands with soap and water before cooking.
2. Use clean utensil for cooking and storing.
3. Wash the vegetables before peeling off. Washing vegetables after cutting leads to loss of nutrients
4. Peel the vegetables thinly to preserve nutrient.
5. Cut the vegetables in equal size. It helps in uniform cooking and prevents loss of nutrition.
6. Use low flame and cover cooking vessel with lid to avoid nutritional loss.
7. Cooked food should be kept covered and preferably consumed early to avoid contamination.
8. Protect cooked food from fly by covering.
9. Prepare proper amount of food to avoid wastage and give adequate quantity of water so that water should not be drain to avoid nutrient loss.
10. Always add salt at the end of cooking as overcooking leads to loss of iodine from salt.

10 appropriate recipes for Complementary feeding:

1. Rice powder gruel (luthri)/ bhim kol- pithaguri

Ingredients		
Sl.No.	Ingredient	Amount
1.	Ricecereal	1 cup
2.	Jaggery	aspertaste
3.	Milk	300ml
4.	Banana(ripe)	1 nos
5.	Salt	aspertaste
6.	Ghee	1 teaspoon



Directions:

- Take one cup of milk and 2-3 table spoon of rice powder in a sauce pan and cook it in low flame and keep stirring.

- In the mean while peel the skin of the banana and mash it.
- Take one ripe banana, (Bhim Kol) and remove seeds.
- Add banana mash, jiggery and keep stirring.
- If needed add more milk.
- Let the mixture to be thick, add ghee and a pinch of salt.
- Cool the mixture and give it to child.
- Add orange juice (optional) before serving.



Mango, ripe papaya, jackfruit puree or any other locally available sweet fruits can be added. we can use any type of banana or other fruit like Jackfruit, mango instead of Bhim Kol.

2. Payash / Kheer

Ingredients		
Sl.No.	Ingredient	Amount
1.	Rice	10gm
2.	Milk	250ml
3.	Sugar	100gm
4.	Elaichi	2 pieces
5.	Bayleaves	2pieces



Directions

- Heat the kadai
- Add the milk and boil it in low medium heat
- Stir it repeatedly till the milk properly boils. Add the properly washed rice and bay leaves
- Cook it till the rice get cooked.
- After the rice is cooked and the kheer consistency is thick add the sugar and mix it well
- Turn off the flame and at last add the elachi seeds.
- Can be served with puri/ Chappati

3. Vegetable thick soup

Ingredients		
Sl. No.	Ingredient	Amount
1.	Any locally available Vegetable	As required
2.	Onion	1 nos
3.	Garlic (mashed)	1 table spoon
4.	Ginger (mashed)	1 table spoon
5.	Oil/Ghee	1 table spoon
6.	Salt	As per taste



Directions

- Wash all the vegetables.
- Cut it in equal size and boil the vegetables, onion, garlic and ginger.
- Now mash all the boiled ingredients.
- Now in a pan take 1 tsp of oil/ ghee and add all the ingredients and cook for a few minutes.
- Add water if needed.
- Add salt to taste

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We can use any of the locally available vegetables like carrot, cabbage, radish, French bean, spinach, pumpkin, squash, drumstick, tomato etc.

4. Star fruit juice

Ingredients		
Sl.No.	Ingredient	Amount
1.	Star fruit	1-2nos
2.	Jaggery	As per taste
3.	Salt	As per taste
4.	Black salt	1 pinch



Directions

- Wash the star fruit and cut it into pieces
- Blend the star fruit, jaggery and salt with half glass of water.
- Serve it in a glass sprinkle one pinch of black salt

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Boiled potato/sweet potato can be added to make it a semi-solid consistency

5. Vegetables khichdi

Ingredients		
Sl.No.	Ingredient	Amount
1.	Rice	½ cup
2.	Dal (moong/masoor)	½ cup
3.	Vegetables	As required
4.	Panch Phoran	1 pinch
5.	Oil/ghee	½ tablespoon
6.	Salt	As per taste
7.	Turmeric powder	1 teaspoon
8.	Lemon	1 small piece



Directions

- Wash the rice, dal and vegetables and cut the vegetables in equal size.
- Heat 1 tea spoon oil/ ghee in a kadahi/ pressure cooker and add one pinch of panch phoran.
- Fry it till light brown colour.

- Add vegetables, dal, rice, turmeric, water and one pinch of salt in it.
- Wait till it gets cooked and at last add salt to taste.
- Make the mixture semisolid and now it is ready to serve.
- Squeeze a piece of lemon before serving.
- Serve it in desired consistency.

We can use vegetables like carrot, bean, tomato, peas and any green leafy vegetables as well.

6. Moong dal laddoo

Ingredients		
Sl.No.	Ingredient	Amount
1.	Moong dal	1 cup
2.	Sugar	1/3 cup
3.	Ghee	3tbsp
4.	Cardamoms (choti elaichi)	2 nos
5.	Dry fruits (optional)	As desired



Directions

- Wash moong dal properly and rinse the moong dal and spread in on a tray or plate. Let it dry naturally.
- Heat a pan on low flame. Then add moong dal and begin to roast the moong dal continue to stir till it gets brown in colour.
- Remove the dal in a plate and let it cool. Now grind it to a fine powder.
- Grind sugar and cardamoms seeds to a fine powder.
- Heat ghee in a pan. Add the grounded moong dal and sugar. Now mix it well.
- Let this mixture became sticky and became laddoo like consistency then cool down the mixture.
- Now start shaping the moong dal laddoos round in shape and garnish with dry fruits.

7. Ripe jackfruit pancake

Ingredients		
Sl.No.	Ingredient	Amount
1.	Rice powder	1 cup
2.	Jack fruit juice	As per taste
3.	Oil	1 teaspoon



Directions

- Mix jack fruit juice with rice powder.
- Add rice powder and make the mixture semi solid.
- Put one spoon of oil on the pan.
- Pour the mixture on pan and cover it for 10 minutes

8. Banana cake

Ingredients		
Sl. No.	Ingredient	Amount
1.	Rice powder	1 cup
2.	Banana (ripe)	1 nos
3.	Jaggery/sugar	As per taste



Directions

- Mash the banana
- Add the rice powder and jaggery/sugar
- Mix the mashed banana, rice powder and jaggery/sugar.
- Wrap the mixture with banana leaf and put it on pan in low heat.
- When the banana leaf starts unwrapping by itself then remove it from heat

9. Fish and vegetable soup

Ingredients		
Sl.No.	Ingredient	Amount
1.	Locally available fish	1 nos
2.	Potato/tomato/ Squash/Sweet potato	As required
3.	Locally available green Leafy vegetables	As required
4.	Garlic	As required
5.	Coriander	50 gms
6.	Salt	As per taste
7.	Oil	1 tea spoon



Directions

- First wash the fish properly.
- Cut the fish in small pieces.
- Cut the vegetables, tomato or potato in equal size.
- Add some oil in a pan and fry the fish.
- Add all the vegetables, potato.
- Add water and boil.
- Mash all the ingredients once cooked.
- Add salt before serving.

11. Vegetable stuffed omelette

Ingredients		
Sl. No.	Ingredient	Amount
1.	Egg	1 nos
2.	Locally available vegetable (onion, tomato, spinach, Carrot, coriander Leaves etc.)	As required
3.	Salt	As per taste
4.	Oil	1 table spoon
5.	Turmeric powder	¼ tea spoon



Use it for above 12 months old children.

Directions

- Finely Chop all the vegetables.
- Take a bowl break the egg in it.
- Add the chopped vegetables and add salt and turmeric in it.
- Mix it well.
- Heat the kadai and add oil, heat it up and add the mixture and cook it in low heat
- Cover it with a lid for properly cooking the vegetables.
- Make an Omelette and serve.

Before ending the session, the facilitator will instruct the participants to prepare any 2 appropriate recipes for complementary feeding. They will be demonstrating these recipes during revision of the next meeting.

END OF THE MEETING:

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Practice preparing healthy locally available and acceptable recipes at household level.
- Share appropriate recipes for children with the community

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 14: LOCALLY ACCEPTABLE RECIPES FOR ADULTS

The objective of the meeting:	To sensitize participants on consuming nutritious diet from locally available and acceptable resources
Procedure	Discussion and activity
Required Equipment	Recipe demonstration, notepad, pen, Register where work plan progress will be noted down
Time duration	1 hour 30 minutes

In this session, the facilitator will share 10 locally available and acceptable recipes for adults which will be followed by demonstration activity in next meeting. Before explaining recipes, the facilitator will revise 10 basic tips for healthy cooking as explained in previous meeting.

10 appropriate recipes for adults:

1. Mosondori chutney

Ingredients		
Sl.No.	Ingredient	Amount
1.	Mosondori leaves	150gm
2.	Onion	1 nos
3.	Tamarind/Lemon	As per taste
4.	Salt	As per taste
5.	Sugar	As per taste
6.	Oil	1 tea spoon



Directions

- Wash the mosondori leaves properly.
- Now grind all the ingredients and sprinkle salt as per taste

2. Pudina masoor dal chutney

Ingredients		
Sl.No.	Ingredient	Amount
1.	Pudina leaves	50 gm
2.	Masoor dal	100 gm
3.	Ginger	10 gm
4.	Garlic	2 cloves
5.	Coriander leaves	2 0gm
6.	Oil	1 tea spoon



Directions

- At first soak the masoor dal for 2 hours
- Next grind the pudina, masoor dal, ginger, garlic, coriander leaves till it becomes a thin paste.
- Now add salt as per taste and oil and mix it well.

3. Patisepta pitha

Ingredients		
Sl. No.	Ingredient	Amount
1.	Wheat(Maida)	½ cup
2.	Suji	1 table spoon
3.	Sugar	¼ cup
4.	Salt	¼ table spoon
5.	Oil	1 table spoon
6.	Crushed Coconut with Sugar (stuffing)	¼ cup
7.	Sugar for stuffing	¼ cup



Directions

- First make the stuffing - Heat the kadai add the crushed coconut and sugar, mix it well and stir it till the mixture became sticky.
- Take a bowl and add maida, rice powder, suji, sugar, salt and water (as required). Ensure that there are no lumps.
- Now take a pan, dip a clean cotton cloth in oil and spread it in the pan
- Give 1 big table spoon of the mixture in the pan and spread it with spoon.
- Add the stuffing in the middle and fold it from the both now turn the other side and cook it.
- It is ready to serve and can be kept for 3 to 4 days

4. Fish curry with drum stick

Ingredients		
Sl.No.	Ingredient	Amount
1.	Fish	4-5 pieces
2.	Drumsticks(chopped)	200 gms
3.	Mustard seeds	2 tea spoons
4.	Onion	1 large
5.	Garlic	4-5cloves
6.	Ginger	½inch
7.	Jeera seeds	1 tea spoon
8.	Tomato	1 nos
9.	Potato	1 nos
10.	Oil, salt	As per taste



Directions

- Cut the drum sticks and potato in small pieces of equal sizes.
- Make a paste of mustard seeds, ginger, garlic and tomato.
- Marinate the fish with turmeric and salt and fry it.
- Heat some oil in a kadhai/ pan and put jeera in it. Next put the prepared paste and stir to mix it well.
- Once the mixture starts to change color, add the cut potato and drum sticks and stir fry the ingredients well.
- After sometime add water as per requirement and allow the ingredients to cook.
- Once the drum sticks are cooked, add the fried fish

5. Til laddoo

Ingredients		
Sl.No.	Ingredient	Amount
1.	Til(sesame seeds)	1 cup
2.	Jaggery	1 cup
3.	Crushed Peanuts (optional)	¼cup



Directions

- Wash sesame seeds and sun dry it.
- Now roast sesame seeds in low to medium heat, spread it in a tray to get cool down and crush with your palm as much as you can so that flavors come out
- In a pan boil ½ cup of water and add jaggery. Let it melt and get thickened while stirring continuously.
- Once the mixture gets thickened add the roasted sesame seeds and peanuts, mix it well.
- Apply oil on your palm and take out table spoon mixture at a time. Give them round ball shapes.
- Now let it stand for 2 hours to get cooled down.

6. Tekeli mukhot diya pitha

Ingredients		
Sl. No.	Ingredient	Amount
1.	Rice	1 Cup
2.	Fresh grated coconut	1/2cup
3.	Jaggery	2tbsp



Directions

- Soak the rice for 2-4 hours, then spread it out on a news paper. When the excess water has dried off, grind it as finely as possible.
- Fill half of the kettle with water and bring it to a boil
- Add some water to the rice powder to dampen it. Add water little by little till it is still

crumbly but damp enough. Take care not to make it too wet. If you press a small portion of it in your closed palm and it does not squeeze out between your fingers, that is the right consistency

- Dampen the cloth pieces and wrap one around the under side of the kettle lid
- Then spread a layer of rice dough over it, add about 1 tbsp of grated coconut, 1 tbsp of jaggery. Cover with another layer of the rice dough. Take care not to press the dough too much to ensure a fluffier pitha
- Wrap the other damp cloth over the mixture, secure it around the lid and place the lid over the kettle of boiling water. Steam for 10-12 minutes
- Take off the lid, carefully unwrap the cloth and take out the pitha. Repeat the process for each pitha

7. Jal pan

Ingredients		
Sl.No.	Ingredient	Amount
1.	Puffed rice (chira)	50 gm
2.	Curd/Milk/Cream	2 table spoons
3.	Jaggery	1 table spoon

Directions

- Wash the puffed rice properly and soak it for 15 to 20 mins
- Add curd and jaggery, mixed it properly.



Other locally available rice flakes, roasted puffed rice can also be used.

8. Fish curry with green leafy vegetables

Ingredients		
Sl. No.	Ingredient	Amount
1.	Fish	1 nos
2.	Locally available green Leafy vegetables	As required
3.	Garlic	½ inch
4.	Ginger	½ inch
5.	Oil	2 tea spoons
6.	Salt	As per taste
7.	Turmeric	½ tea spoon



Directions

- Wash the fish properly and cut it into pieces
- Wash the green leafy vegetables and grind it.
- Now add 1-2 tea spoon of oil in a pan.
- Add the fish in the oil and fry for some time and take off from pan in a bowl.
- Add garlic ginger paste in the oil and add turmeric in it.
- Now add grinded vegetables and fish and cook.
- Add water as required and allow the in gradients to cook.
- Add salt to taste.
- Serve with steamed rice.

9. Fish curry with bhedailota

Ingredients		
Sl.No.	Ingredient	Amount
1.	Fish	4-5 pieces
2.	Bhedailota (skunk vine)	200 gms
3.	Potato (boiled)	2 nos
4.	Onion (chopped)	1 large
5.	Garlic	4-5 cloves
6.	Ginger	½ inch
7.	Jeera seeds	1 tea spoon
8.	Oil, salt	As pertaste
9.	Coriander leaves	As required



Directions

- Make a paste of the skunk vine (bhedailota), extract the juice and boil in a pan by adding some water.
- Fry the fish in a separate vessel.
- After removing the fried fish, use the same oil and add jeera, boiled potato, onions and ginger/garlic paste.
- Add turmeric, salt as per taste to the mixture and stir for some time.
- Add the bhedailota juice, fish to the mixture and stir well. Add additional water if required.
- Allow the mixture to cook and garnish with coriander leaves if desired.

10. Koldil with paro mangso

Ingredients		
Sl.No.	Ingredient	Amount
1.	Paromangkho	200gm
2.	Koldil(Banana Flower)SmallSize	1 nos
3.	Mustard oil	1 tablespoon
4.	Turmericpowder	½tablespoon
5.	Salt	Aspartaste
6.	Onion	1 nos
7.	Ginger-garlicpaste	1teaspoon
8.	Potato	2-3nos
9.	Bayleaf	1-2nos



Directions

- Wash the koldil and cut it in small pieces and then boil it separately
- Heat oil in the pan and add the chopped onion and fry onion till light brown.
- Now add ginger and garlic paste and bay leaves fry it for 1 min.
- Add paro meat and fry it for 5 minutes in medium flame with cover lid.
- Now add the boil koldil and potato. Add turmeric and pinch of salt and stock water and cooked it in medium flame withcoverlidfor15-20 minutes till the all in gradient properly cooked.
- Add salt as per taste.

Before ending the session, the facilitator will instruct the participants to prepare any 2 appropriate recipes for adults. They will be demonstrating these recipes during revision of the next meeting.

END OF THE MEETING:

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Practice preparing healthy locally available and acceptable recipes at household level.
- Share appropriate recipes for adults with the community

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 15: PROMOTION OF NUTRI KITCHEN GARDEN

Nutri Kitchen garden development

It is a sincere effort to grow different vegetables, fruits and other plants which are required in the kitchen as food material, in the courtyard of house or on a part of agriculture farm. It is developed by the own efforts of family members and is 100% organic meant for only self-consumption.

Having defined kitchen garden, the facilitator will share why it is needed and possible ways for its development

The objective of the meeting:	To sensitize participants on development of kitchen garden
Procedure	Discussion and sharing case stories
Required Equipment	Register where work plan progress will be noted down, notepad, pen, register
Time duration	1 hour 30 minutes

Why kitchen garden development is needed?

It is required for the following reasons

- To get enough vegetables to each and every member of the family which is the most essential component of our diet. Regular consumption of green leafy vegetables also helps in improving the haemoglobin and immune system of our body.
- To get pesticide free safe, fresh and pure vegetables at our doorstep available for self-consumption. It will also save money.
- It will help in managing kitchen waste. As recycling and reusing of kitchen waste is essential component of kitchen garden.
- It will help us in conserving local seeds of vegetables. It will help us in conserving the biodiversity of our local seeds.
- Learning of organic farming techniques will also give farmers confidence on success of organic farming and they will replicate it on their agriculture farm, it will not only reduce their cost of cultivation but also lead to revival of soil fertility.

1. Selection of site for kitchen garden development.

- A. **The first requirement for kitchen garden development is 500-1000 sq. land area** with soil to grow nutrition garden. The area should get direct sunlight continuously for minimum 3-4 hours either in the morning hours or evening hours. There should not be any tree with thick canopy which will provide shade near the area of kitchen garden. On the agriculture farm strictly the land area where chemical fertilizers or pesticides are not used should be used for kitchen garden development. The land area should not have too much slope otherwise all the soil will be washed away in rainy season or through irrigation water.

- B. **Secondly water source** should be available near the kitchen garden. Kitchen waste water can also be used for kitchen garden development. On agriculture farm water from irrigation wells or farm canals can be used for irrigating kitchen garden.
 - C. **Fencing of the kitchen garden area.** People can use different locally available materials like cotton or tuar stalks, old saris, bamboo mating, thorny bushes, live green mehndi fence and thorny bushes from iron wires etc for fencing. It is required to protect kitchen garden from hen, cattle and monkeys.
 - D. **Nutrition Garden should be essentially developed organically.** The preparations for nutrition garden development should be started from summer season, for example collection of good soil, soil preparation, compost preparation etc should be done in summer season. All the organic inputs like Jeevamrut, herbal formulations for pest control and collection of local improved varieties of good seeds of vegetables should be done in advance.
 - E. **Hand tools** are required like spade, sickle, baskets for carrying materials, mud pots, plastic bags, jute bags etc should be gathered and kept ready for doing different operations of kitchen/nutrition garden development.
1. **Kitchen garden development in the Land area i.e., court yard of rural/urban house or on Agricultural farm.**

Soil Preparation : 2a). Preparation of Plane

Plots If kitchen garden is to be developed in land area than generally plot method is used. It is essential to loosen the soil. Therefore, with the help of manual kitchen garden tools (spade or fork) approximately 9”-12” soil is dug to loosen it. If soil is very hard and difficult to dug, then it is irrigated till it is well soaked with water and after 24 hours it is loosened with the help of hand tools.

After that small plots can be prepared in east West

Direction so that plants get proper sunlight. The Wid of the plot should not be more than feet, so that person sitting outside the plot Can work inside the plot by hand. One can prepare the plots of 4x3 feet, or 5x3 feet. The plots to plot distance can be 1 foot and While row to row distance can be 2 feet. Soil outside the plot area should be pulled to make the ridges of the plot.



After preparation of plot, manure is uniformly applied in the plot. It can be cow dung manure or vermin compost or compost prepared from waste biomass. Liquid manures like Sanjeevak or slurry from the biogas plant can also be applied. After 24 hours of application of manures and irrigating the soil sowing lines are marked with the help of kitchen garden tool (fork) and seeds are sown either by broad casting method or by straight lines. Generally, seeds of leafy vegetables like Palak, methi, Hara dhania, chavali leafy vegetables are sown by broadcasting method while seeds of fruit vegetables like lady's finger, beans, cluster beans etc. can be sown in straight lines.

2b) Ridges and Furrow method. In the areas/ farms of black cotton soil or soil with poor drainage, kitchen garden can be developed by making ridges and furrows. In this method initially land is cultivated by bullock/hand tools loosen the soil and then with the help of spade soil is pushed in one line to make ridges. Due to pulling of soil in the ridges furrows are made to

between the two ridges. Seeds like radish or carrot, beet root etc can be sown on the ridges, Seedlings of vegetables like brinjal, chilli, tomato etc also can be shown on ridges. Seeds of leafy vegetables like fenugreek (methi) or spinach

and coriander can be sown in the furrows i.e., between the two ridges. This technique can be also applied to grow vegetables between the rows of main crop like cotton or pigeon pea etc if the crops are grown organically.



2c) Preparation of Raise beds. Seeds of brinjal, tomato, chilli, etc are very small, they cannot be sown directly in the soil, therefore to prepare the seedlings of these tiny seeds it is essential to make raise beds. To prepare raise beds soil of the area 2'x2' or 3'x3' feet is made loose with the help of spade or fork. This soil is mixed thoroughly with vemi compost or cow dung manure in equal amount and raise beds of 2"- 2-5" above the ground level are prepared. Trenches are made on the side of the raise bed to irrigate these beds. These raise beds are well irrigated one day before sowing. After 24 hours of irrigation the raise bed is divided in to 3 equal parts and seeds of brinjal, tomato, chilli etc can be sown in different parts. After one month of growth these seedlings can be removed and transplanted in different plots.

1. **Seeds for growing vegetables.** Traditional and improved varieties of seeds which can be conserved, multiplied and sown every year should be selected for kitchen garden development. In rural areas traditional seeds of brinjal, tomato, climber vegetables like beans, bitter gourd etc are available with farmer women. These seeds should be conserved multiplied and exchanged amongst women to grow kitchen gardens. In urban area where traditional seeds are not available with people, improved varieties or straight-line varieties of seeds or local seeds can be purchased from the nearby Krishi Kendra.

5 a) Testing the quality and germination of seeds. If seeds are conserved at home by the farmers than it is essential to check its quality and germination capacity before sowing.

Method – 1 One bucket full of water is taken and big seeds like that of Lady's finger, beans, cluster beans bitter gourd etc should be released in water. Seeds

which are infected by pest and are punctured by the insects' floats on water while good seeds are heavier, they settle on the bottom of the bucket. This process can be repeated 3-4 times to separate good seeds.

Method - 2 Seed germination test. If the seeds preserved at home for 1-2 years, then the seed germination test should be done before sowing. It can be done in following steps.

1. Handful of seeds from the seed packet are selected and 100 seeds are counted randomly (without making any visual separation of good seeds or bad seeds)
2. A full-size double fold newspaper is taken and it is well soaked in water.
3. The 100 counted seeds are spread evenly on this wet newspaper in a way so that seeds do not overlap on each other. This paper is then slowly rolled and it's both the ends are folded in way that seeds does not fall out from this paper roll.
4. This seed paper roll is kept in polythene bags and kept on safe place i.e., away from children, rats, cat or monkeys. Daily moistening of the paper is not required.
5. After 3-4 days (depending on natural germination period of the seeds) the newspaper containing seeds is opened and the germinated seeds are counted.
6. Initially the seeds which are not germinated are separated and counted and then germinated seeds are counted.
7. Based on the number of germinated and un-germinated seeds we can easily asses the germination percentage. If it comes to less than 50 % the process should be repeated. If it comes less than 50% for more than 3 times then the seeds are not safe for sowing. Depending on the seed germination percentage we can also decide the seed rate before sowing.
8. Sometimes even if the seeds are purchased from the market but their quality does not appear good, then based on the above 3 tests the customer can prove its poor quality to the shopkeeper and return the seeds to him.
9. Seed germination before sowing alerts the person and protects him/her from germination failure after sowing.

5 b) Seed Treatment. 1 In one litter water approximately 250 ml cow urine is mixed. The seeds of vegetables can be soaked in this mixture for 30-60 minutes before sowing. It helps in destroying the fungal/bacterial disease on the seeds. It also protects the seeds from soil born insects and pest after sowing.

Seed treatment – 2. Seeds are also destroyed by birds, soil insects, rats, hens etc after sowing in to soil. This is also the reason of germination failure. Usually this happens in vegetable seeds. Thus, it is recommended to do the seed treatment before sowing. The formulation of seed treatment is as follows.

Sr. no	Raw material	Proportion	Approximate quantity for 250gms seeds
1	Cow dung	1 part	100gms
2	Cow urine	1part	100ml
3	Ant /termite hill soil or soil under the banyan tree.	1 part	100gm

The quantity of the above mentioned raw-materials can be decided based on the quantity of seeds to be treated. All these three raw materials are mixed thoroughly in a way that it forms a thick semi-liquid uniform paste. The seeds which are to be treated are spread on a newspaper or cloth and then this mixture is gently applied on the seeds. Care should be taken that while applying this paste the outer skin of the seeds is not removed. Treated seeds are then allowed to dry for 1-2 days in shade until they become completely dry and hard can be separated from each other. It is suggested that seed treatment should be done 1-2 days before sowing when the climate is dry.

Seed treatment not only protects the seeds from soil insects or animals but also increase the germination percentage of seed, make the young seedlings drought resistant (ant hill soil holds moisture for it) and promote the good growth of plant (thecow dung and cow urine mixture supplies required nutrients to young plant.

Connecting the previous meeting on food diversity, the facilitator will share story of Somabari and encourage participants for developing kitchen garden

Story of Somabari

Somabari belongs to a village. She never felt the insufficiency of food as they had a garden full of vegetables and fruits. They were also able to get all milk-related products as they had some domestic animals. Somabari also liked to eat these foods. School teachers were also pleased with Somabari as she was a bright student. She got married at the age of 20. After two years of marriage, she got pregnant. But she was not getting enough vegetables and fruit as her in-laws were not in favor of purchasing or gardening vegetables. She was depressed as she was unable to feed proteins food like fruit, vegetable, egg, fish to her child. Once she took her child to the hospital for a checkup.

In the hospital, they weighed the child and the doctor came up with a report showing the child is suffering from malnutrition and advised to feed proteins food like meat, egg, vegetables, milk in daily diet. The doctor also advised taking care of cleanliness while preparing and feeding food.

After getting advice from the doctor, she decided that she will now pay attention to her child's daily

diet and will not allow losing her child's weight in the future. She and her family decided that they will start gardening fruits, greens and vegetables on the vacant places near their house. After a few months, they able to get fruits, greens, and vegetables from the garden they have created.

Somabari also encouraged her neighbors to do the same. She and her husband along with all villagers

Created a vegetable garden and converted that in to a business. They also started poultry farming. They were now able to strengthen their socio-economic life from the above farming.

After the story telling, the facilitator will ask participants what they have learned from the story. The facilitator will continue the meeting until everyone of them understand the

Importance of the vegetable garden. The facilitator will also ask how many of them have a vegetable garden and what are the type of vegetables they have cultivated.

Visiting garden

The facilitator will request someone who has a vegetable garden to take others and exhibit the garden and also discuss how he/she has prepared it. After that, the facilitator will escort others to the vegetable garden. The facilitator will keep a note on the required things and the procedure to prepare the vegetable garden, which will help in the future.

After this, the facilitator will discuss the work strategy to prepare a vegetable garden.

Steps and methodology to prepare a vegetable garden

The facilitator will discuss how they can prepare a vegetable garden in their house and will discuss the below-mentioned points.

1. When they will start working?
2. Which work is mandatory? How they will execute?
3. Are they interested in helping each other by creating small groups?
4. Are they interested in again to hold a meeting on listing out required things, saplings, seeds?
5. Who will take responsibility for checking that every family has prepared a vegetable garden? If required how and where they will consult an expert.
6. What they should do if any problem arises.

How they will work as a group the facilitator will discuss.

Guarding Vegetable Garden

It should be kept away from domestic animals. It is very expensive to create and maintain a boundary, so we can use some big trees to achieve the goal. Generally, these trees don't have any value but sometimes these trees provided some medical benefits. These trees help to prevent soil erosion and give protection from a cyclone. Woods from these trees can be used for cooking purposes.

Advantages of Living Boundary

1. By staying a little bit careful while selecting trees for boundary it can help us during the harvesting time.
2. It can protect the garden from soil erosion and cyclone.
3. It provide support for tendrils.
4. It protects the garden from water loss from the soil during summer.
5. These big trees control the temperature and wind flow.
6. These trees act as hostile for different birds, who eat worms that could affect the garden.

Selection of Living Boundary

1. Trees must be able to grow quickly, should have deep roots inside the soil, it can be maintained easily if required.
2. It should be able to grow quickly from seeds, saplings, and roots.
3. Trees should have different sizes and shapes.
4. It should have at least 120 cm in width.
5. Trees should not be planted on the east and south direction.

The disadvantage of Living Boundary

1. They obscure sunlight from the sun to reach on other plants.
2. Some times they need attention during growth.
3. The selection must be done carefully otherwise these big trees will observe all water and nutrition.

Example: Below is some examples of selecting trees bae on climate and place.

1. Lower layer: ivy gourd, Screw pine, Pineapple.
2. Lower- Middle layer: Trees like Gum Arabic, Jujube.
3. Upper- Middle layer: Sacred Tree and Forest Lemon.
4. UpperLayer: Drum stick tree, Areca tree.

Preparing Organic Pesticides

Time: Every season, everywhere.

Topic: Pesticides prepared from different leaves.

Preparation: Medicinal, Spices, Scented trees which tastes bitter (like Neem,) and trees which excrete sticky materials will help to protect from ants and anthill. Leaves from these trees 1 sterushed and then kept the whole night after adding an equal amount of water to it. Then 5–6-time soap water added to the prepared solution. This solution is now ready to sprinkle on plants. It reduces the warms, insects from harming vegetable trees. It can be used in 10 days in terval or based on the requirement.

Wood ashes protect insects from harming trees. A mixture of Neem or Mahala oil along with some compost can help to protect diseases causing by the soil.

Crop Cycle and Mix Cropping

Some crops are friendly in nature. By cropping these crops simultaneously, they protect each other from different diseases and insects.

1. Lady Fingers + Cluster Beans.
2. Mustard.
3. Radish/Cauliflower Carrot/Broad Beans/Beans.
4. Tomato/Green Chili/Brinjal + Onion/Garlic.

Organic Food

Time: In every season, especially in summer.

Topic: To prepare organic compost from the raw material of domestic animals, dry grasses from paddy.

Preparation: It should be prepared at a high-altitude place. It will be ready after decaying above for 5 to 7 weeks. Raw material from goat, duck and unused vegetable rind can also be used. In this process, earth worm works as the main decomposer. In this compost, the ratio of carbon and nitrogen should be 25-30:1.

Compost preparation time depends on a number of earthworm present. Generally, it takes 8 to 12 weeks to get ready for use.

Advantage

This compost provides food to the trees and helps to make the soil more fertile in nature.

Preparing Liquid Manure

Time: Every season and everywhere.

Topic: To keep the soil more fertile liquid manure is used. For the treatment of saplings or seeds, liquid manure is added to soil on a time interval.

Preparation 1: It is prepared from already prepared composts. An equal amount of cow dung and cow urine (gomutra) is added with water (5 times) and kept for 8 to 10 days. Everyday it should be stirred for 5 to 10 minutes. This mixture in the ratio of 1:1 with water can be sprayed over crops.

Preparation 2: Prepared Compost is added with an equal amount of cow-dung and cow urine. A thin liquid mixture is prepared by adding 10 times of water to the above mixture. The liquid solution is kept for 10 to 18 days. Before spraying over crops, it is added with 2 times of water. For 9 square meter area around 2 to 2.5 liter of this solution used for every week.

Apart from it, this can be prepared in other approaches as well but it should be prepared in equal measurements. The solution can be kept for 10 to 14 days.

Compost prepared in high temperature is mixed with 50 liters of water and 250 gm of jiggery. This mixture kept for 24 hours till foam get started. This solution used 1 liter in every 4 to 5 square meter area.

Advantage

This organic mixture can be easily prepared after getting training in it. It reduces the dependency on pesticides. This increases soil fertility and reduces the number of diseases caused by soil.

Preparing Compost in High Temperature

It helps in crop production. Preparation:

- Identify a place on the corner of the garden which is nearer to a water source. The place should be avoided from sunlight and easy from the house.
- Dry leaves, dry grasses, unused papers, cardboard are a huge source of carbon these are categorized to brown material. Green grass, leaves, eggshell, vegetable skin, kitchen dustbin are a huge source of nitrogen these are categorized as green material.
- There are different ways exists to mix these materials. One way has put all green and brown material in the trench. Another way is to put brown and green material one after another to form a layer structure. For preparing a better compost to create a 6-inch layer of a brown substance followed by 3-inch green substance, at the end 3-inch brown layers should be placed.
- Do not add meat, bone, fish etc. to the above because it attracts insects and virus.
- If possible, add raw material of cow, goat, hen, horse to the above mixture.
- Regularly add water to the mixture to keep it moist. Cover the mixture with soil so that earthworms can grow inside easily.
- It should be kept until it is ready for use. Check to ensure the compost has a dark brown color or black soil, which has a nice smell. All the original material should not be seen if the decomposition process went on well.
- It can be used for 1 to 4 months. By mixing compost regularly it can also be used for a longer time.
- They increase the organic matter in the soil which in turn releases the plant food is available from the use of crops.

Joint meeting of crops

Main crop	Friendly crop	Enemy crop
Brinjal, spinach, cauliflower	Carrot, cabbage, cucumber, beans	Onion
Indian beans	Carrot, corn, cucumber, peas, radish	Onion
Cauliflower, tomato	Beans, onion, marigold	Gourd
Carrot	Beans, Indian beans, cucumber	Radish
Corn	Beans, Indian beans, watermelon	Tomato
Chilly	Onion, garlic, marigold, cucumber, yard Long beans	Mustard
Coriander	Brinjal, Indian beans, beans	Cucumber, pumpkin
Cauliflower	Peas, tomato greens	Onion, garlic
Potato	Onion, marigold	Aniseed

END OF THE MEETING

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Practice preparing healthy locally available and acceptable recipes at household level.
- Share appropriate recipes for children and adults with the community
- Note number of participants who developed nutria kitchen garden
- Note number of participants having income generation nutria garden, vermicompost, etc

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 16: TYPES OF FARMING- NUTRITION SENSITIVE FARMING, SUSTAINABLE INTEGRATED FARMING SYSTEM AND MIXED FARMING

Defining kitchen garden, the facilitator will share why it is needed and possible ways for its development

The objective of the meeting:	To sensitize participants on various types of farming which ultimately aim to <ul style="list-style-type: none"> • Improve household food, nutrition and livelihood security • Improve food, livelihood and income diversity • Improve ecological sustainability • Strengthen the local economy
Procedure	Discussion and sharing case stories
Required Equipment	Register where work plan progress will be noted down, notepad, pen, register
Time duration	1 hour 30 minutes

Improving diet through Nutrition Sensitive Farming:

Nutrition sensitive farming is an approach that seeks to maximize agriculture’s contribution to nutrition. This strategy stresses the multiple benefits derived from enjoying a variety of foods, recognizing the nutritional value of food for good nutrition, health and productivity, and the social significance of the food and agricultural sector for supporting rural livelihoods. Nutrition-sensitive agriculture also entails targeting poor households, promoting gender equity, and providing nutrition education so that household resources are used to improve household members’ nutrition, especially that of women and young children.

Instead of focusing exclusively on cash crops to be sold on the market, rural farmers can use their land to cultivate a variety of commodities, including fruits, vegetables and small livestock like chicken. This can improve household food security, nutrition and the economic status of the family and the community. The training manual emphasizes on planning for nutrition interventions from the beginning of a project, which entails conducting a thorough situation analysis to understand nutritional problems and their causes to identify ways investments in agriculture can prevent malnutrition. Prevention is key—besides the obvious health benefits of stopping malnutrition before it starts, preventative programmes are more cost-effective than those that concentrate solely on treatment.

There needs to be a mental shift in the way we currently view agriculture. It encompasses more than just cereal crop production—from horticulture to forestry and fisheries, agriculture should be seen not only as a means to an end, but as an essential process for improving the quality of foods available to the community and ensuring healthy soils and ecosystems for farming in the future.

Case Study: Loknath Nauri

Loknath Nauri, a small farmer hails from a small village in Rayagada district, Odisha has been growing nearly 56 varieties of millets, corn, maize, pulses and oilseeds through mixed farming on his two-and-a-half-acre land. From this land, his ten-member family gets enough balanced food and the surplus he sells at local market. He even gets other food items through bartered system. He

practices various easy methods that involve no cash investment to enhance nutrition content of the soil through weeding, mixed cropping and composting to increase his produces.

A few years back the situation was little different. Lured by commercial traders, he cultivated Bt Cotton in his entire land for a couple of years. He invested heavily in chemical fertilizers and other inputs from the market. But he lost his Bt Cotton crop due to drought. He also lost all the money he spent on to buy Bt cotton seeds, pesticides and fertilizers. He and his family have to survive with by eating local weeds, because there was no money to buy food. Then he realized he would not invest on cash crops rather would grow variety of crop that would provide food to the members of the family. Because he had applied chemicals on soil for the cultivation of Bt Cotton, he worked hard to bring back soil nutrition content. He followed some easy steps to prepare the land before sowing seeds.

The first step was to make a compost pit. He dug a three and half feet deep pit to produce farmyard manure for the land. He put nitrogen-fixating plants and wet leaves, paddy husk, different kinds of millets and their seeds with cow dung and urine. In addition, kitchen waste was also put into it. A few days before sowing seeds, he applied 60 percent of this manure on the land and also left his cattle in the field for a few days. After sowing, with a gap of 15 days, the rest of the manure was applied on the farmland before the flowering stage of crops. He followed crop rotation each time and mixed his crops as well.

Nauri explains certain weeds are equally important to keep the nutrients of the soil. These weeds recharge the much-needed and essential nitrogen in the soil.

Now, to increase the yield of his farmland, he follows weather pattern to understand rainfall and then select his crops. He also mulches most of his crops so that rainwater and dew moisture is held for longer periods. It checks soil erosion and holds the nutrients in the soil as well. To treat pest attacks, he uses the locally available stem of sago palm. The stem is cut from tree and planted in the field. It has proven to very effective in dealing with any kind of pests. After all these efforts, now the soil of his land is rich and full of nutrients.

With different varieties of produce throughout the year, he is now able to sell on a regular basis. He does not buy any food from the local market except salt, which he gets through battered system.

Key Points:

- Using of chemicals and fertilisers spoils the nutrition contents of the soil
- Organic manure can improve the nutrition of the soil
- Certain weeds are equally important to keep the nutrients of the soil
- Mulching helps to keep the moisture of the soil for a longer period
- To treat pest attacks one can, use the stems of Sogo palms

Such stories of small and marginal farmers in remote villages are not uncommon. These small and marginal farmers from remote villages have few resources, but usually multiple assets (e.g., less than an acre of land with a field, a homestead, little livestock and a pond). The soil condition of their land is usually poor and majority of them practice continuous mono cropping. They commonly

have less money to invest per acre and do not earn any significant profit, thus are trapped between subsistence farming and meeting market demands. Sometimes, even they lure by commercial farmers to grow such crops which deteriorate their soil fertility and they lose both yield and profit. These factors need to be considered from a holistic perspective.

However, before the shift towards a market-driven agricultural system, a less energy insensitive, but eco-friendly production system was in place. Now markets dictate what food to grow and sell, the income from which is then used to buy food from the market. Some sell or lease out their land to big commercial farmers and become daily labourers or shared croppers on their own land, others migrate to cities. This kind of change in farming pattern has an adverse impact on their intake of food especially on women and children and while once the tribal children were healthier than the urban population with times, they became malnourished.

To tackle these issues the concept of **Sustainable Integrated Farming Systems** for small and marginal farmers have emerged as an improved version of mixed cropping. This imitates not only utilizing crops for production, but also varied types of plants, animals, birds, and fisheries. These are combined in such a way and proportion that each element helps the other, the waste of one is recycled as resource for the other.

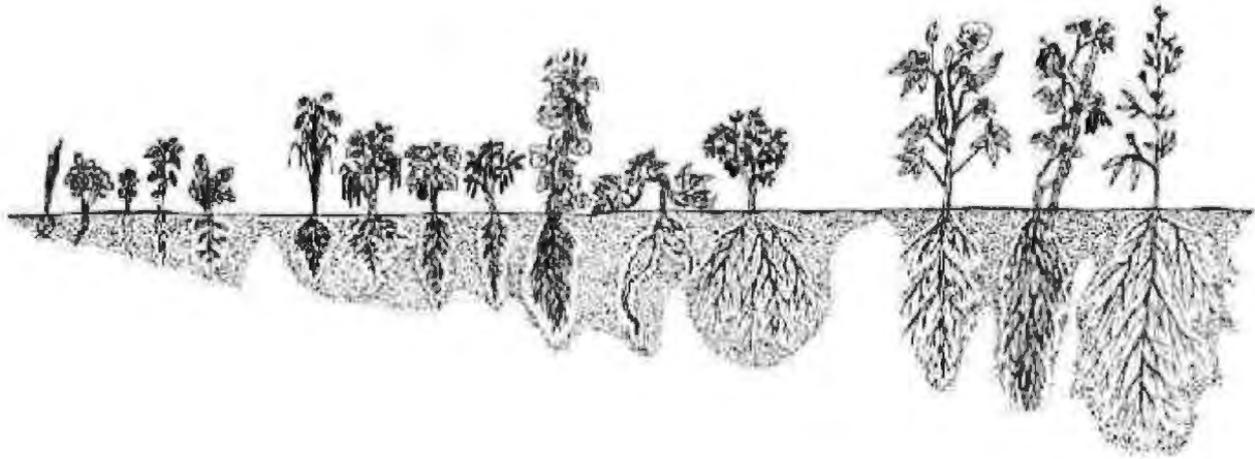
Sustainable Integrated Farming System:

The current global scenario firmly emphasizes the need to adopt eco-friendly agricultural practices for sustainable integrated agriculture. Chemical Agriculture has worsened the scenario and exponentially increased the incidence of health hazards. The "**Health care**" of soil, plants and the micro and microorganisms have deteriorated due to excessive use of chemicals and fertilizer for farming. It has been widely accepted that organic farming alone could serve as a holistic approach towards achieving sustainable agriculture, as organic farming is nature-based, environment friendly and sustainable ensuring not only the requirement of the present but also the conservation of resources for nature. Organic agriculture is known under various names such as '**green culture**' and '**natural farming**'. The high demand for organic produce by the present-day health-conscious people gave further movement and eventually sporadic attempts have been made by farmers all over to de-toxify the land, dispense with chemical fertilizers, pesticides, fungicides, herbicides and grow crops organically. In recent years, organic farming has developed very rapidly. Organic manure replaced chemical fertilizers while herbal extracts replaced pesticides and fungicides. Crops cultivated under organic farming systems produce significantly higher yields than those raised under conventional agriculture systems.

What is Sustainable Integrated Farming System?

The concept of Sustainable Integrated Farming System (SIFS) has developed from the idea of imitating nature through collaboration, multilayer arrangements and energy recycling, by carefully combining different elements. In SIFS, overall production, income and nutrition (food and fodder) are enhanced and diversified both in terms of quantity and quality. The incidence of risk is reduced and the system becomes energy efficient as a whole. It also integrates various techniques like soil water conservation, energy security, rainwater harvesting, cropping sequence management and multilayer arrangement for better management of space and utilization of time by increasing cropping intensity and decreasing fallow periods.

This Sustainable Integrated Farming System involves following three main principles.



Cropping sequence:

An appropriate cropping methodology has to be followed

Less competition for food: This is achieved by a combination of low, medium (herbs) and heavy feeding crops (cereals, fruits) as well as soil building plants (legumes).

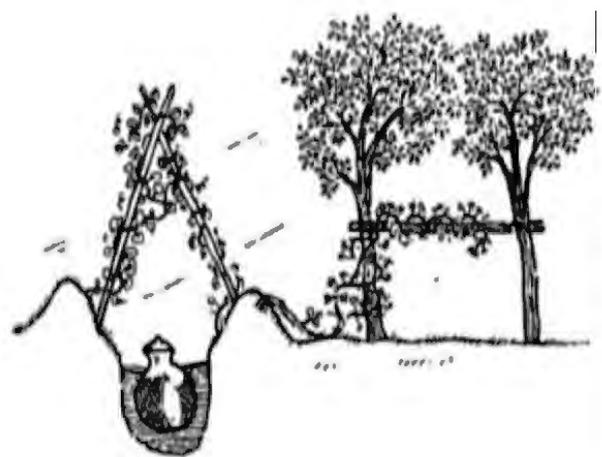
Space available for proper root system: The roots of different plants attain different depths, so a proper combination of plants with different root depths helps minimize inter-crop competition for soil sap.

Longer duration of cropping season: One of the main aims is to minimize the lean period in the field. The intercropping should be done in such a way that the field never remains vacant or unproductive.

Pest control: Companion crops are sometimes helpful in pest control. Proper selection of some trap or pest repellent crops as part of the mixed cropping can reduce pest attacks considerably.

Multi storey arrangement:

Most natural ecosystems in tropical regions are multi-level arrangements. High levels of interaction between biotic and abiotic components and multiple energy exchange routes make a natural ecosystem resilient, self-maintaining and highly productive. Moreover, productivity improves over time, unlike as in agroecosystems. If farms and gardens are redesigned to mimic the structures and functions of natural ecosystems, they will be more feasible and sustainable.

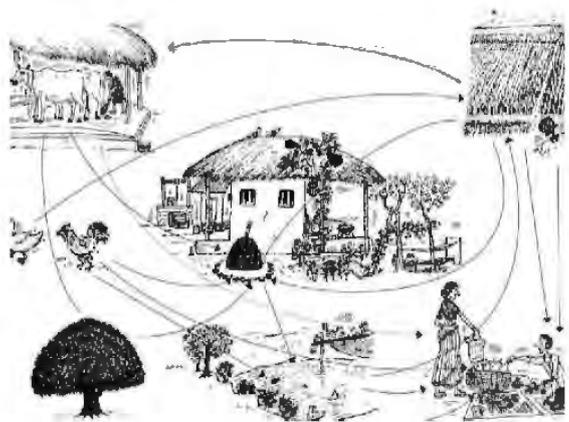


The three rules regarding multi-storey farming are:

- The crops should be planted in ascending order of height from east to west, so that each plant gets equal sunlight.
- The roots of the planted vegetables should be of different types and draw water and nutrients from different layers of soil.
- The vegetables should be identified in such manner that the food security of family is effectively maintained, i.e., combination of leafy vegetables, cereals, legumes, etc. So that:
- The total available area is effectively used.
- The cultivated crops get adequate soil sap.
- The plants get the sunlight they require.
- The plants cooperate with each other during growth.
- Soil fertility remains intact.

Integrating subsystems and various components

Next to diversification, integration is the most important aspect of sustainable resource management. In ecologically integrated farming systems, closer integration is attempted within each farm/garden/pond etc. at the level of nutrient exchange as well as at the functional level. Therefore, inter and intra subsystem linkages are established.



Animals such as pigs, goats, cows, local birds, hens and ducks can be introduced to obtain waste products as a source of nutrients and other functional inputs. It is very important to carefully select the different components so that they interact positively; e.g., chickens can be destructive in a vegetable garden, but in a fruit orchard, they can keep the pests/weeds under control. In a garden some plants/birds/animals are deliberately introduced, while other living things grow by themselves or come to the garden if a suitable environment is created or food/water/shelter is provided.

- Birds and animals (wild and domestic)
- Perennial plants (wild and domestic)
- Aquatic plants and organism (wild and domestic): we often need to make space for that through land shaping
- Micro flora and fauna: Mushroom etc
- Insects (wild and domestic): beekeeping etc which can help in pollination and income generation
- Seasonal and annual plants (wild and domestic)

Other important principles of SIFS design:

- Replace fossil fuels with renewable energy
- Treat soil as live medium, stop use Synthetic pesticides and biocides

Look for possibilities hidden within problems: Trials is on to use water hyacinth and other aquatic weeds as mulch and composting material, to use termite as chicken and fish feed etc. Uses of pond bottom silt to improve sandy soil and rice husk ash to amend clayey soil are also examples.

Suggested indicators for interventions

Process indicators

- a. All farmers are members of farmers group/ club
- b. All farmers are actively participating in the training process of capacity building
- c. All farmers follow the step-by-step sustainable integrated farm planning process

Outcome indicators

- Farmers following improved sustainable agriculture practices
- Local crops/breeds are promoted and the diversity of these are increased
- Food availability is increased
- Diet diversity is increased
- Household income is increased

Case Study:

Case Study: Kedar Sing – adapting to increasing stresses

Kedar Singh is the only bread earner in his 4-member family with 3 acres of land, including 1.5 acre of upland, 0.5 acre of medium land, 1 acre of low land. He is also possessing 1 cow, 2 bull, 5 goats and 9 ducks. One well has also been constructed very recently under MNREGA in his homestead. He had been practicing rain fed mono cropped farming traditionally for a long time in his land without planning. He was cultivating maize and ridge gourd in his .5 acre of homestead land and paddy in the upland during Kharif (Rainy Season) and wheat and potato during Rabi (Winter) season in low land. Kharif paddy, which has been the major source of income, has not been successful due to often delayed and often less monsoon and also falling productivity of land and increasing cost of cultivation. When the monsoon was delayed, the Rabi crop in the low land was also suffering due to moisture in the soil. So along with buying vegetables, he was also buying cereals to feed the family.

Road towards sustainability

Kedar Singh, with no other option, was attracted to the orientation and campaign of Integrated Farming Systems and became a member of Navajagriti Farmer's club. Through this, he got training on multi-cropping systems, SRI method

of rice cultivation, using cow dung and other agro-wastes for composting and vermin composting etc. He planned multi-cropping for his homestead and SRI for main field in the kharif season. For homestead, he brought back Madua, a long-forgotten millet along with Maize, ladies' finger, ridge gourd, leafy vegetables and pigeon pea. As a new crop, sweet potato was tried in the .5 acre of his upland area and slightly modified SRI with 2-3 seedling per heel due to erratic monsoon in the 1 acre of the main farm. He used partially digested compost in his field and decoction of Neem leaf and Sindwar (vitex nigundo) on ladies finger and ridge gourd for the protection from insects attack. He also used duck in the SRI paddy field for weeding and loosening of soil. He was not sure about the success of the method of SRI, so he tried rice in his lowland by conventional methods – which yield half of the entire production from SRI field. That year, rainfall was delayed for about 15 days. But these interventions helped him to be in a better position than other conventional farms in the village. This increased the crop diversity and yield of the crop and he harvested approximately 3.0

quintal of maize, 35 kg of ladies finger, 50 kg of ridge gourd and 5 kg of red leafy vegetable – mostly used for consumption in the family, with a little bit sold in the market. He got 30 kgs of Madua with 3 quintal straws used as fodder. From 3 kg of sweet potato seed in 10 decimals of upland, he got 4 quintal of potato which are also sold in the market. Pigeon pea was a failure due to poor quality of seed. In the 1st season itself, his self-esteem boosted, when after consumption in the household he was able to sell of amount 25,000.

The winter of 2012 came. In the homestead Kedar cultivated brinjal, chili, spinach and other vegetables for home consumption. In 50 decimals of upland, he cultivated wheat in SWI method and produced 4 quintal wheat and 1.5 quintal of straw. He also cultivated mustered in 40 decimals of land to produce 2.5 quintal of mustered – which he partially kept for producing cooking oil. He earned 5000 even in this season too. Summer 2013, being the most difficult season of the year in Deoghar district – he could produce pumpkin and ridged gourd – which is first time in his life. After feeding the livestock, he used agro wastes for composting – now he has 2 compost pits – which help in reducing cost of fertilizer, helped in moisture retention of the soil – that's why he was able to take three crops this year. In the coming rainy season, he is planning to cultivate Madua on 10 decimals, paddy on 100 decimal and intercropping of Maize, Cow pea and Pigeon Pea in 60 decimals of land. The homestead will be kept for raising nutrition garden.

Key Points:

- b. He attracted to the orientation of Integrated Farming Systems and became the member of a farmer's club
- c. He planned multi-cropping for his homestead and SRI for main field in the kharif season
- d. For homestead, he cultivated Madua, a long-forgotten millet along with Maize, ladies finger, ridge gourd, leafy vegetables and pigeon pea.
- e. He used partially digested compost in his field and decoction of Neem leaf and Sindwar to protect crops from pest
- f. After feeding the livestock, he used agro wastes for composting through pit compost

Case study:

Savitri Devi

Savitri Devi from Jhanji village in Jharkhand's Deoghar district is a model farmer today. She has been able to successfully incorporate Sustainable Integrated Farming Systems (SIFT) techniques on her 60 decimals (one decimal=1/100 acre) of farmland to produce bumper crops of maize, paddy, chickpea, millets and potatoes.

Just a few years back, she and her husband used to struggle to cultivate their land but all their hard work was to no good as crop failure was common. To feed their family of eight, Ghanshyam, Savitri's husband would have to migrate every few months to work as a labourer in nearby Deoghar town. What changed her fortunes was the creation of a farmer's club in the village, under a unique food security initiative, where unskilled tillers like her were taught different ways to maximise their yields.

She was introduced to SIFS, under which local unskilled farmers have been taught innovative techniques to improve output as well as earnings. The programme has definitely made farming profitable and brought women and men back to their fields. Earlier, migration was a common phenomenon but things have changed tremendously – and for the better.

The SIFS approach moves away from individual crop performance to increased system productivity. Based on agro-ecological zones, a combination of crops, horticulture, agro-forestry, livestock and fisheries are integrated to create an ideal self-sustaining farm. Use of capital-intensive external inputs is minimised by enhancing the recycling of materials. Nutrition is an integral component of SIFS and farm planning also includes designing homesteads, gardens, pathways and water bodies to ensure year-round healthy organic food for the household. Additionally, it links the smallholder farmer with the market by building up capacities of value chain analysis and business development.

Savitri has increased the fertility of her land exponentially by using the bio compost that she learnt to make once she joined her local farmers club. By substituting the expensive chemical fertilizers for the cheap and homemade cow dung compost she has been producing more than 40 per cent of her usual yield of paddy, maize and other foods. In fact, not only is she now able to alternate between Rabi (spring harvest) and Kharif (winter harvest) crops, the paddy and kharif crops she is using need much lesser water than the traditional varieties.

Says Ghanshyam, “Life has truly changed for us. Till a few years back, we were not making enough to even feed our children but these days we are successfully managing our field, cultivating a flourishing kitchen garden and have learnt superior techniques of growing food. Also, making our own cow dung compost has proved to be a real boon.” Savitri makes her own vermi-compost, which she uses on her farmland and sells the excess at the weekly local haat (bazaar) for a nominal Rs 5 per kilogram.

It’s really simple to prepare the compost. Explains the enterprising cultivator, “We have dug a 6ft /3ft/3ft pit that is filled with dung, dead plants and fallen leaves. Into this mix we add earthworms. Within a month’s time the compost is ready for use.” Savitri and farmers like her, who had earlier been using chemical fertilizers and urea, have come to the conclusion that with the organic vermi-compost they can maintain the fertility of their fields without spending a sizeable sum of money.

Key points:

- Successful in implementing Sustainable Integrated Farming Systems (SIFT) techniques on her farmland to produce maize, paddy, chickpea, millets and potatoes
- She increased the fertility of her land by using cow dung compost she learnt from local farmers club
- She makes her own vermi-compost, which she uses on her farmland and sells the excess at weekly local haat

Mixed farming:



Mixed farming is a system of farming in which a farmer conducts different types of agricultural practices together, on a single farm in view of increasing his income through different sources. Mixed farming is the combining of two independent agricultural enterprises on the same farm. In mixed farming a farmer can take up different types of practices for income generation while doing his main business of agriculture. Some of these

practices that can be done together with the main agricultural practices are – poultry farming, dairy farming, fisheries, goat and sheep rearing, piggery and agro forestry. Thus, a farmer can raise his income manifold through carrying out different farming practices together. The greatest benefit from this type of farming is that if any one business does not pay desired benefit, the same can be recovered from the benefit of the other business. A number of factors are there to affect the system of mixed farming. These are – quality of soil, quality of livestock, location of farm, topography, water facility, technologies used and economic considerations.

Some of the important merits of mixed farming are mentioned below.

- This farming system maintains soil fertility by recycling soil nutrients and allowing the introduction and use of rotations between various crops and forage legumes and trees, or for land to remain fallow and grasses and shrubs to become re-established
- Mixed farming maintains soil biodiversity, minimize soil erosion, help to conserve water and provide suitable habitats for birds
- It makes the best use of crop residues. When they are not used as feed, stalks may be incorporated directly into the soil, where, for some time, they act as a nitrogen trap, exacerbating deficiencies. In the tropical semi-arid areas, termite action results in loss of nutrients before the next cropping season.
- Mixed farming allows intensified farming, with less dependence on natural resources and preserving more biodiversity than would be the case if food demands were to be met by crop and livestock activities undertaken in isolation.

What is Mixed Crop farming?

Mixed crop farming is an agricultural system which is dominated by tribals, where in a small acre of land tribals grow various types of agricultural products ranging from long and short duration millets, vegetables, maize, corn and oil seeds. A farmer can grow minimum 60-70 varieties of crops in one or two acres of land. These cultivations are free from fertilizer and pesticides. They prepare and use different types of organic manure thus practicing chemical-free farming.

In mixed cropping, farmers store the seeds after each harvest or borrow from other families in exchange of local seeds or grains available with them. This cropping process ensures that the seeds are local, more suitable and adaptive to the soil and available in abundance. It also helps the farmer to get the food supply throughout the year. A farmer with proper knowledge of mixed cropping can grow paddy including several long and short duration millets, foxtail millet, ragi, pearl millet, sorghum, maize, velvet beans, tomatoes, ladyfingers, black sesame, turmeric, sweet potato, yams, castor seeds, chilies and more. This results in increasing soil fertility, as the carefully plants legume fixing plants (like as beans) with a crop such as maize. As one crop takes nutrients from the soil, the legume crop replenishes those nutrients. This ensures that soil fertility is maintained throughout without heavy depletion. Several local plants are available that can be used as insect repellents such as the locally grown sago palm. Its stem is cut out and planted in the field to keep away insects from attacking the plants. This helps to tackle several different insects at the same time. For example, if you plant a ring of marigold around groundnuts it checks pest attacks. This practice ensures farmers maximum produce with each harvest and a constant food supply for the whole year.

Case Study:

Kidko Kilaka

Sixty-five-year-old Kondh tribal woman Kidko kilaka has been in farming since her childhood days. Her entire family involve in farming of a two-acre land that she has received through the *patta* system from State government. She has strictly prohibited using of any fertilizers or chemical inputs on crops, and swears by traditional techniques that she learnt from her previous generations. She cultivates a variety of long and short duration millets, vegetables, paddy and spices. She collects as many as 33 varieties of mushrooms, yams, spinach, fruits and honey from the forest for family consumption and selling in the village market (*haat*). She grows what is needed for the members of the family, and not purchasing anything from the local market, only exchanging honey for salt at the market. She is also well versed in understanding rainfall patterns and changing climate conditions. This helps her in carefully selection of crops for better productivity and avoiding crop failure.

Seeds are stored after each harvest or borrowed from other families in exchange of other local seeds or grains. This process ensures that the seeds are local, more suitable and adaptive to the soil and available in abundance. To keep a constant food supply throughout the year, Kilaka practices mixed cropping of paddy, several long and short duration millets, foxtail millet (long and short duration), ragi, pearl millet, sorghum etc. Along with these she grows maize, velvet beans, tomatoes, ladyfingers, black sesame, turmeric, sweet potato, yams, castor seeds, chilies and more. This results in increasing soil's fertility, as the carefully plants legume fixing plants (like as beans) with a crop such as maize. As one crop takes nutrients from the soil, the legume crop replenishes those nutrients. This ensures that soil fertility is maintained throughout without heavy depletion. Kilaka uses several local plants that are used as insect repellents such as the locally grown sago palm. Its stem is cut out and planted in the field to keep away insects from attacking the plants. This has helped to tackle several different insects at the same time. There are several other pairings or companion plants that help control pests as well. For example, growing a ring of marigold around groundnuts checks pest attacks, on as the farmer releases a chemical (thiopene) that repels worms and insects.

These practices help Kilaka to ensure maximum produce with each harvest and a constant food supply for the whole year. In addition to her yield from upland, she also collects fruits, tubers, greens from the forest for family consumption. There are leafy vegetables (several varieties of spinach), fruits (varieties of mangoes), mushrooms, yams, mohua leaves (used to make local alcohol), bamboo shoots, eggs (from wild chickens, peacocks and birds), honey (from bees and termites) etc. Though food cultivates in her upland is sufficient for her family consumption, as a cultural practice as well as bring a variety of food items for the whole family she depends on forest produces. She also sells the forests produces in local market for cash or in exchange of salt.

By carefully selecting her crops, Kilaka is able to practice minimal irrigation. She watchfully chooses her crops in accordance with rainfall and temperature patterns before every sowing season. She has learnt several observation methods from her family that help in understanding the changing patterns of rainfall. Her sowing time and techniques (making use of local millets that require less water and time to grow) are guided by timely or late rainfall. She experiments with the variety of crops to quantity of produces so as to ensure minimum loss in case of less rain, late or no rains conditions.

Kilaka and other tribal farmers of neighbouring villages are now moving towards a state of food secure. This has enabled them to follow their traditional farming methods and they are able to produce, consume and procure it for next cycle. By using local seeds that are more adaptive, Kilaka is able to produce not just several varieties of nutritious food but also raise its quantity without the use of any chemical inputs, advanced irrigation techniques or high yield seeds.

Key points:

Never uses any fertilizers or chemical inputs on crops and swears by traditional techniques she learnt from her previous generations.

She cultivates a variety of long and short duration millets, vegetables, paddy and spices

Seeds are stored after each harvest or borrowed from other families in exchange of other local seeds or grains

She ensures that soil fertility should be maintained throughout the year without heavy depletion.

She uses several local plants like Sago palm as insect repellents

Adi Kumbruka

Aadi Kumbruka of Kondhaguda village in Sahada Panchayat Rayagada district, is a successful farmer of mixed crop farming. This Kondh tribal farmer is cultivating nearly 72 types of mixed crop that includes vegetables, millets, pulses and oil seeds in his 1 acre of upland locally known as *Gudiachasa*. In addition, he has 1 acre of lower hill or forest cultivation (*Dongar*) for fruits and millets. He also collects wild spinach, fruits and tubers from the forest adjoining his village. –All these provide a variety of food to my family throughout the year. Apart from family consumption, I have surplus food for the next year too”, says Aadi.

He prepares and uses different types of organic manure thus practicing chemical-free farming. This along with mixed crop farming produces 60-70 different types of food variety for the household throughout the year. Multiple crops also help deal with pests and diseases, which are increasing with the changing weather. –On the boundary, we sow mustard, *jatropha* and other oil seeds which repel or impede the progress of insects towards the inner field which has millets, paddy and other grains interspersed with seasonal vegetables. A sprinkling of bio-pesticides made of cow urine, ash and vegetable skins also helps,” Aadi says.

While farmers in other parts of the State faced crisis due to crop failure during droughts, cyclone and floods, farmers like Aadi through proper crop planning under traditional mixed farming have surplus food security and additional income. They cultivate various types of millet which is climate resistant and free from pesticides. They also use organic manure made out of cow dung, cow urine, jaggery and gram flour- which is free of chemicals. The tribal farmers are satisfied with the traditional mixed crop farming now.

Key points:

Adi Kumbruka is successful farmer in mixed crop farming

He prepares and uses different types of organic manure practicing chemical-free farming

Along with mixed crop farming he produces 60-70 different types of food variety for the household throughout the year. Through proper crop planning under traditional mixed farming Adi has surplus food security and additional income

A comparative study

Nutrition sensitive farming	Sustainable Integrated Farming system	Mixed farming
<ul style="list-style-type: none"> <input type="checkbox"/> Nutrition sensitive farming is an approach that seeks to maximize agriculture's contribution to nutrition <input type="checkbox"/> It targets poor households, promoting gender equity and improves household members' nutrition, especially of women and young children <input type="checkbox"/> Farmers can use their land to cultivate a variety of commodities, including fruits, vegetables and small livestock like chicken <input type="checkbox"/> This improves household food security, nutrition and the economic status of the family and the community. 	<ul style="list-style-type: none"> <input type="checkbox"/> SIFS is the improved version of mixed cropping for small and marginal farmers <input type="checkbox"/> This imitates not only utilizing crops for production, but also varied types of plants, animals, birds, and fisheries <input type="checkbox"/> These are combined in such a way that each element helps the other, the waste of one is recycled as resource for the Other <input type="checkbox"/> In SIFS, overall production, income and nutrition (food and fodder) are enhanced and diversified both in terms of quantity and quality <input type="checkbox"/> It also integrates various techniques like soil water conservation, energy security, rainwater harvesting, cropping sequence management and multilayer arrangement 	<ul style="list-style-type: none"> <input type="checkbox"/> Mixed farming is a system of farming in which a farmer conducts different types of agricultural practices together on a single farm <input type="checkbox"/> In mixed farming a farmer can take up different types of practices for income generation while doing his main business of agriculture <input type="checkbox"/> The practices of mixed farming is – poultry, dairy, fisheries, goat and sheep rearing, piggery and agro forestry <input type="checkbox"/> Mixed farming maintains soil biodiversity, minimize soil erosion, help to conserve water and provide suitable habitats for birds

Having explained this, the facilitator will sum up the meeting.

END OF THE MEETING

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Have a better understanding on types of Farming- Nutrition Sensitive Farming, Sustainable Integrated Farming System and Mixed farming Practice
- Share related case stories with community to generate awareness
- Note separate number of participants practicing Nutrition Sensitive Farming, Sustainable Integrated Farming System and Mixed farming Practice

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 17: DEVELOPMENT OF FOOD AND NUTRITION ENTERPRISE

In this meeting, the facilitator will give background of PMFME scheme and share ideas of developing food and nutrition enterprise with participants.

Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PM FME Scheme)

The state of the world today teaches us that a (Atmanirbhar Bharat) –Self-reliant India” is the only path. Ministry of Food Processing Industry (MoFPI) has launched the PM FME scheme under the Aatmanirbhar Bharat Abhiyan with the aim to enhance the competitiveness of existing individual micro-enterprises in the unorganized segment of the food processing industry and promote formalization of the sector. The scheme to be implemented over a period of five years from 2020-21 to 2024-25 with a total outlay of Rupees 10,000 crore.

The scheme has a special focus on supporting Groups engaged in Agri-food processing such as Farmer Producer Organizations (FPOs), Self Help Groups (SHGs) and Producers Cooperatives

The objective of the meeting:	To sensitize participants on ways to develop Food and Nutrition enterprise
Procedure	Discussion and sharing general guidelines
Required Equipment	Notepad, pen and register where work plan progress will be noted down
Time duration	1 hour 30 minutes

along their entire value chain. Ministry of Food Processing Industries (MoFPI), in partnership with the State/UT Governments, will provide financial, technical and business support for upgradation of existing micro food processing enterprises.

Instruction/ general guidelines for disbursement of seed capital to SHGs identified by NRLM

The disbursement of Seed Capital to SHGs under PM FME scheme would be implemented with the support of NRLM and its network of SRLMs operating at the state level. The PMFME scheme envisages financial support of maximum of Rs. 40,000 for working capital and purchase of small tools for each member of SHGs engaged in food processing activities. As per the PMFME Scheme guidelines, Ministry of Food Processing Industries (MoFPI) would release its contribution to SNAs for the Seed Money component, as a grant. The SNAs along with the State/ UT's contribution would in turn release funds to SRLMs. For channelizing funds to SHGs, the seed money would be provided to CBOs (Cluster Level Federation/ Village Organizations) by SRLMs as a grant. CBOs would provide Seed Capital money as a loan to SHG members. The repaid loans would be the corpus of the SHG networks.

As per the scheme guideline, seed capital would be provided to SHG members that are presently engaged in food processing activity. Food processing activity refers to the transformation of raw materials or agri-produce into any other consumable form that has a shelf life and packaging is done for the market.

The following activities are not considered as food processing activity for the disbursement of Seed capital under PMFME-

- Milling of Cereals (Wheat, Rice, Pulses, Legumes etc.)- Packing of Cereal grains
- Unprocessed or Loose Milk (selling of milk/curd)
- Sorting, Grading, Washing, and Trading of Agri-produce or any food item
- Canteen, grocery, hotel, tiffin services, restaurants, or any other food services enterprises
- Poultry, Piggery, Goatry or any other rearing activity of animals
- Trading and selling of fresh Fish/ cut meat/ Chicken etc.
- Grinding and Trading of flour/ spices on piece rate basis
- Trading and Selling of Fruits and Vegetables
- Selling of Loose/ Unprocessed spices
- Bee Keeping/ Loose selling of Honey

In reference to the above list, following manufacturing activities are considered under food processing activity

- Bakery (Bread/ Muffins/ Cakes/ Biscuits/ Cookies etc.)
- Chocolate
- Khoya/ paneer/ packaged Ghee
- Packed processed spices
- Packaged Honey

General instructions for reviewing and recommending the applications / beneficiaries details for seed capital support under PMFME.

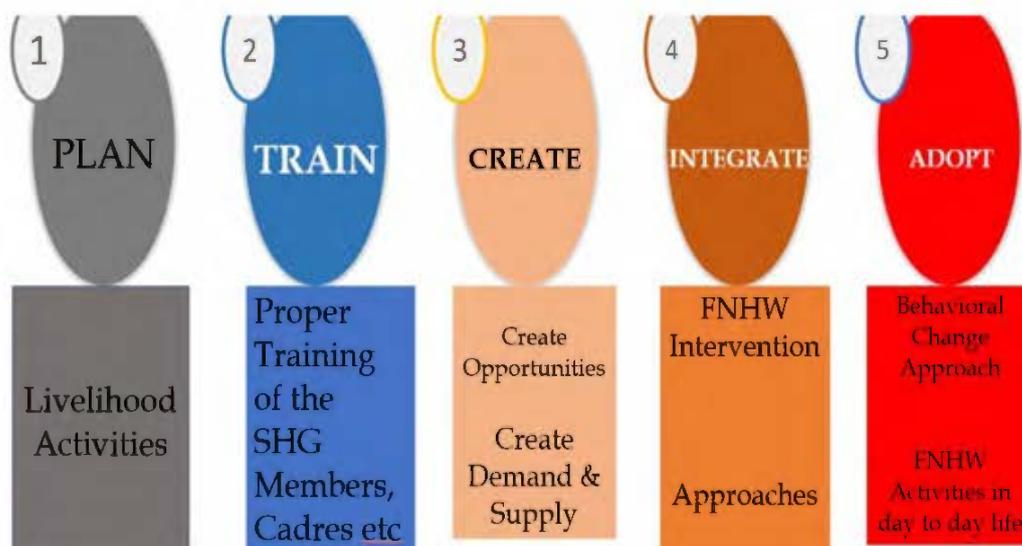
- The SHG member can apply for seed capital support only once. Hence, there should be no repetition of same SHG members in the records.
- The photographs of the enterprises should be uploaded on the portal which should reveal the nature of enterprise and products being manufactured. A broad assessment of nature of enterprise and food processing activity may be made based on photograph/s.
- The beneficiaries details rejected at the State level, may be re-entered at the blocks for reconsideration.
- Multiple options are available under the Finished product sub-category field.
- Maximum of three products only to be chosen which are same OR most close to the product being produced. There should not be beneficiaries details where multiple options chosen are misaligned.

Instructions for review of applications/ beneficiaries details under MIS for seed capital support under PMFME.

- Applications/beneficiaries details mobilized and entered into NRLM-PMFME module should be complete in all aspects including all related figures, amounts and photographs.
- The amount recommended by VO/ CLF must not be more than the amount required by the beneficiary. A check has been made under MIS to eliminate this error, however for the existing data this need to be monitored.
- The amount recommended by VO/ CLF must not be more than the maximum entitlements as per the guidelines.

- The amount recommended by VO/ CLF must not be 0 or should not be NIL.
 - The finished product category and subcategories in the application must be aligned and must not be more than 3. These should lead to an understanding about the final product being processed or manufactured. SRLM and VO/CLF should reject the application in case of more than three entries in the column of Finished Product Sub- Category.
 - The relationship between the investments made in the enterprise, loans taken and turnover being generated should be broadly visible vis-à-vis the products being produced, years of operation and market.
 - If the enterprise is engaged in the ODOP then the final product processed from ODOP should be reflected in the Finished product sub-category.
 - The recommended cost for equipment and working capital should be aligned to the cost envisaged by beneficiary under these heads and the cost of equipment should also be in sync to the required equipment.
 - Details of equipment required should be enlisted.
 - SRLM may reject the application citing following reasons :
 - o Incorrect information
 - o Incomplete information
 - o Data duplicity
 - o More than three entries in Finished product sub-category
 - o Others (specify)
- Ultimate goal of integrating FNHW enterprises in livelihood is to develop income generation. It has a cascade of planning the activity, training of cadres, creating opportunities, integrating and adopting that intervention in day-to-day life (refer image below). Ajeevika SARAS Mela Food Court, State SARAS Melas etc are great platforms showcasing these enterprises from various blocks.

Integration of FNHW in Livelihood in general



Active SHG women under ASRLM have setup various units for income generation through FNHW:

- Processing units are setup for: Turmeric, Meat and Fish, Bhimkol Jelly & Bhim Bhita, Bee keeping and honey, Dry Fish, Cashew Nuts, spices etc
- Projects: Medicinal and aromatic project, Homestead Garden project, Strawberry project
- Manufacturing and trading of non-farm enterprises- Dairy products - Paneer, curd etc, Pickles Making, Chips making and selling (Namkeen), Bakery, Muri production and selling, fish, meat, fruit, vegetables, fertilizers, plant nursery, footwear trading and repair, sanitary napkin, incense sticks, bamboo accessories and vessels, etc
- Development of value chains for-Mushroom cultivation, Hill broom and maize and Moringa/ <i>sehjana</i> /drumstick cultivation at a large scale.
- Live stock units- duckery, piggery, poultry, goat rearing, incubator unit, dairy value chain, semi-intensive BYP unit
- Powder making of tulsi, ginger, gooseberry, tea, etc,
- Organic/natural farming and organic fertilizers setup viz- Vermiwash, Vermi Compost, Agneyastra, Brahmastra etc.
- Poly house for year-round crops

END OF THE MEETING

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Have a clear understanding on PMFME guidelines and instructions
- Share appropriate ideas of entrepreneurship from ASRLM examples and encourage members for FNHW enterprise start up
- Note number of participants benefitted from PMFME scheme

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 18: ACCESS TO SERVICES, RIGHTS AND ENTITLEMENTS (PUBLIC DISTRIBUTION SYSTEM, TAKE HOME RATION, MID-DAY MEAL, SUB CENTRE AND PHC FACILITIES, COVERAGE AND CLAIMS ON HEALTH INSURANCE SCHEMES)

The objective of the meeting:	<ul style="list-style-type: none"> • To Build an understanding on the schemes , where and how to avail • Highlight roles of SHG members in facilitating access to schemes • Generate discussion and demand entitlements
Procedure	Discussion of various schemes and micro planning
Required Equipment	Register where work plan progress will be noted down, notepad, pen
Time duration	1 hour 30 minutes

In this meeting, the facilitator will share details of all schemes pertaining to Social Protection and women's nutrition using the table below-

Name of scheme	PRADHAN MANTRI MATRU VANDANA YOJANA¹ (PMMVY)
Objective of scheme	Providing partial compensation for the wage loss in terms of cash incentives so that the woman can take adequate rest before and after delivery of the first living child. The cash incentive provided would lead to improved health seeking behavior amongst the Pregnant Women and Lactating Mothers (PW&LM)
Implementing agency	National: Ministry of Women & Child Development, Govt. of India; State: Department of Social Welfare, Govt. of Assam
Who is eligible?	All Pregnant Women and Lactating Mothers, excluding PW&LM who are in regular employment with the Central Government or the State Governments or PSUs or those who are in receipt of similar benefits under any law for the time being in force. All eligible Pregnant Women and Lactating Mothers who have their pregnancy on or after 01.01.2017 for first child in family. The date and stage of pregnancy for a beneficiary would be counted with respect to her LMP date as mentioned in the MCP card.
Documents required for applying	<p>First installment: Mother & child Protection card showing LMP, Bank a/c passbook in the name of beneficiary, ID proof, residence proof.</p> <p>Second installment: MCP card showing at least 1 ANC</p> <p>Third installment: Birth certificate of newborn child, MCP</p>

¹Official national website of NHM - www.nrhm.gov.in

	card showing first round of immunization of child.
How are the eligible identified? Who selects the final beneficiaries out of the total eligible?	The AWWs, ASHAs are to identify eligible pregnant and lactating mothers who have had first pregnancy on or after 01.01.17 and help them in filling the forms 1A, 1B, 1C for the first, second and third instalments respectively.
Provisions under scheme/ Entitlements	<p>First installment: Pregnant women who have their pregnancy on or after 01.01.17 for their first born are eligible to receive Rs. 1000 directly in their bank account. The pregnancy should be registered within 150 days of their LMP.</p> <p>Second installment: Pregnant women who have done at least 1 ANC are eligible to receive Rs 2000 on submission of form 1B along with the MCP card.</p> <p>Third installment: Women are eligible to receive third instalment of Rs 2000 after birth of first child provided, they submit the birth certificate and proof of immunization of the child through the MCP card.</p> <p>JSY: All women eligible for PMMVY are eligible for the JSY of Rs 1400. The total amount to be received by the eligible beneficiary is Rs 5000 under PMMVY and Rs 1400 under JSY.</p>
Who to apply? Who to approach?	The application forms are to be filled by the AWW, ASHA worker and verified by CDPO and Supervisor and uploaded into the PMMVY CAS portal at the ICDS project level.

Name of scheme	MID DAY MEAL SCHEME (MDM)²
Objective of scheme	<p>The objectives of the mid-day meal scheme are:</p> <ul style="list-style-type: none"> • Improving the nutritional status of children in classes I – VIII in Government, Local Body and Government aided schools, and EGS and AIE centers. • Encouraging poor children, belonging to disadvantaged sections, to attend school more regularly and help them concentrate on classroom activities. • Providing nutritional support to children of primary stage in drought-affected areas during summer vacation <p>e MDM is now an entitlement for all school going children upto 14 years of age.</p>
Implementing agency	<p>National: Ministry of Human Resource Development, Govt. of India</p> <p>State: Department of Education, Govt. of Assam</p>
Who is eligible?	All school going children up to 14 years of age are to be provided MDM.

Documents required for applying	None
How are the eligible identified? Who selects the final beneficiaries out of the total eligible?	No selection process
Provisions under scheme/ Entitlements	The MDM Rules 2015 states – Every child within the age group of six to fourteen years studying in classes I to VIII who enroll and attend the school, shall be provided hot cooked meal having nutritional standards of 450 calories and 12 gm of protein for primary and 700 calories and 20 gm protein for upper primary free of charge every day except on school holidays. The place of serving meals to the children shall be school only.
Who to apply/ Who to approach?	School administration, School management committee

Name of scheme	Take Home Ration
Objective of scheme	Supplementary Nutrition Programme mandated the provision of fortified blended supplementary food products called Take-Home Rations for home use for children under three years, pregnant and lactating women.
Implementing agency	National: Ministry of women and child welfare State: Social Welfare Department
Who is eligible?	All children between 6 months to 3 years and pregnant and lactating women
Documents required for applying	None
How are the eligible identified? Who selects the final beneficiaries out of the total eligible?	No selection processes.
Provisions under scheme/ Entitlements	Provides fortified supplementary ration to pregnant and lactating women and children 6 months – 3 years. Fair and Average quality of rice and wheat Other ingredients which may be required such as Bengal Gram, sugar, jaggery groundnuts, etc. should be purchased from local market and should be of good quality.
Who to apply/ Who to approach?	Anganwadi Center

Name of scheme	Atal Amrit Abhiyan (AAY)
Objective of scheme	To address this key vulnerability faced by the BPL population and Low-Income households in the State, the Government of Assam has launched the health assurance scheme –Atal Amrit Abhiyan” providing cashless treatment and coverage of critical care targeted at the BPL population and Low Income households

Implementing agency	National Health Mission
Who is eligible?	Each individual adult member of the eligible families will be enrolled Children below 18 years of age will be enrolled with the head of the family.
Documents required for applying	<ul style="list-style-type: none"> • Voter ID Card. • EPIC Card (in case of minors the birth certificate in original) • Income Certificate. • Other valid documents. • NFSA Card is also valid if have.
How are the eligible identified? Who selects the final beneficiaries out of the total eligible?	Implementation Support Agency, State Nodal cell
Provisions under scheme/ Entitlements	<p>To address this key vulnerability faced by the BPL population and Low Income households in the State, the Government of Assam has launched the health assurance scheme 0–Atal Amrit Abhiyan” providing cashless treatment and coverage of critical care targeted at the BPL population and Low Income households. The scheme is free for BPL families and for families having annual income of 5 lakh or less the beneficiaries will be charged Rs 100/- per person per year.</p> <p>The Scheme will provide inpatient treatment facility at the empaneled hospitals (Private and Public) up to a maximum limit of Rs. 2.00 lakh per individual member per annum within and outside the State of Assam covering 438 procedures for the following diseases:</p> <ul style="list-style-type: none"> • Cardiovascular diseases • Cancer • Renal (Kidney)diseases • Neo natal diseases • Neurological conditions • Burns
Who to apply/ Who to approach?	Kiosk at district hospitals /civil hospital/ network hospital / medical college and hospital. Arogya Mitras will facilitate beneficiary

Name of scheme	Pradhan Mantri Jan Arogya Yojna (PMJAY)
Objective of scheme	PM-JAY is health assurance scheme which aims at providing a health cover of Rs. 5 lakhs per family per year for secondary and tertiary care hospitalization .
Implementing agency	National Health Authority
Who is eligible?	The households included are based on the deprivation and occupational criteria of Socio-Economic Caste Census 2011 (SECC 2011) for rural and urban areas respectively.
Documents required for applying	Aadhar or identity proof , ration card for family identification

How are the eligible identified? Who selects the final beneficiaries out of the total eligible?	Those who are in SECC list. Families that were covered in RSBY but are not present in the SECC 2011 are also covered. States have been provided the flexibility to use their own database for PM-JAY.
Provisions under scheme/ Entitlements	<p>PM-JAY provides cashless cover of up to INR5,00,000 to each eligible family per annum for listed secondary and tertiary care conditions. The cover under the scheme includes all expenses incurred on the following components of the treatment.</p> <ul style="list-style-type: none"> • Medical examination, treatment and consultation • Pre-hospitalization • Medicine and medical consumables • Non-intensive and intensive care services • Diagnostic and laboratory investigations • Medical implantation services (where necessary) • Accommodation benefits • Food services • Complications arising during treatment • Post-hospitalization follow-up care up to 15 days
Who to apply/ Who to approach?	Contact near district hospital or empaneled private hospital) , seek assistance from Arogya Mitra at hospital; call 180018004444 (toll free) for information Link : https://pmjay.gov.in/about/pmjay

Name of scheme	Pradhan Mantri Suraksha Bima Yojana (PMSBY)
Objective of scheme	The main objective behind rolling out the PMSBY Yojana is to enable all the countrymen to have social security. And with this accident insurance in place, the beneficiary will benefit from the accident and the insured's death. The Premium is also extremely less (Rs 12 p.a) as compared to other insurance policies.
Implementing agency	Department of financial services
Who is eligible?	The Scheme is available to people in the age group 18 to 70 years
Documents required for applying	Aadhar card would be the primary KYC for the bank account.
How are the eligible identified? Who selects the final beneficiaries out of the total eligible?	The Scheme is available to people in the age group 18 to 70 years with a bank account who give their consent to join / enable auto-debit on or before 31st May for the coverage period 1st June to 31st May on an annual renewal basis.
Provisions under scheme/ Entitlements	<ul style="list-style-type: none"> - The risk coverage under the scheme is Rs.2 lakh for accidental death and full disability and Rs. 1 lakh for partial disability. The premium of Rs. 12 per annum is to be deducted from the account holder's bank account through 'auto-debit' facility in one installment. - The policy covers any death, accidents and disability caused due to natural calamities. However, the plan does not provide any coverage against suicide, but death due to murder is covered. The plan does not provide any coverage

	<p>in case of irrecoverable loss of eyesight, loss of one hand or foot.</p> <ul style="list-style-type: none"> - The scheme is being offered by Public Sector General Insurance Companies or any other General Insurance Company who are willing to offer the product on similar terms with necessary approvals and tie up with banks for this purpose.
Who to apply/ Who to approach?	<p>contact respective life insurance corporation</p> <p>Link : Pradhan Mantri Suraksha Bima Yojana(PMSBY) Department of Financial Services Ministry of Finance Government of India</p>

Name of scheme	Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJY)
Objective of scheme	Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) is a life insurance scheme launched by the central government of India for the growth of the poor and low-income section of society.
Implementing agency	Department of financial services
Who is eligible?	The PMJJBY is available to people in the age group of 18 to 50 years
Documents required for applying	Aadhar would be the primary KYC for the bank account
How are the eligible identified? Who selects the final beneficiaries out of the total eligible?	The beneficiary should be having a bank account who give their consent to join / enable auto-debit.
Provisions under scheme/ Entitlements	<ul style="list-style-type: none"> - The life cover of Rs. 2 lakhs shall be for the one-year period stretching from 1st June to 31st May and will be renewable. - Risk coverage under this scheme is for Rs. 2 Lakh in case of death of the insured, due to any reason. - The premium is Rs. 330 per annum which is to be auto-debited in one installment from the subscriber's bank account as per the option given by him on or before 31st May of each annual coverage period under the scheme. - The scheme is being offered by Life Insurance Corporation and all other life insurers who are willing to offer the product on similar terms with necessary approvals and tie up with banks for this purpose.
Who to apply/ Who to approach?	<p>contact respective life insurance corporation</p> <p>Link : Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) Department of Financial Services Ministry of Finance Government of India</p>

Microplanning by SHG, VO and CLF

SHG Level	<ol style="list-style-type: none"> 1. Obtain data from entitlement assessment tool on indicators such as eligibility, access for Insurance, Mid-day meal and PMMVY (use *entitlement assessment tool) 2. Initiate action at the group level as planned for the quarter 3. Review progress in the 3rd month and prepare the action plan for the next quarter.
VO Level (SAC meetings)	<ol style="list-style-type: none"> 1. Dream Village Mapping, Resource Mapping. Can be done once annually or in 3 years for issues in nutrition and access to schemes on nutrition and health 2. Prepare a quarterly action plan (refer *score sheet) to address the issues related to schemes, issues identified in the community and action points related to the Dream Village. 3. Share quarterly action plan to CLF, BPO and Panchayat. 4. Initiate action at the group level as planned for the quarter 5. Review progress in the 3rd month and prepare the action plan for the next quarter.
CLF level	<ol style="list-style-type: none"> 1. Analyze the quarterly action plans of the Vos 2. Initiate Action by identifying support needs of the VOs to accomplish the action plan. 3. Facilitate inter departmental meeting and interactions for availing schemes and apprising District Authorities of the issues identified by the community.

The SHGs will use the entitlement assessment tool for capturing data on knowledge, eligibility, access, bottlenecks and enabling agents for all social protection schemes that includes information on PMMVY , AAY, PMJAY, etc. The SHGs and SAC members will use these tools for agenda – based discussions in their meetings on entitlements. The score sheet sums the assessment from the entitlement assessment tool and provides space for further planning to address bottlenecks in accessing entitlements.

**Note: Entitlement assessment form and score sheets were shared with SACs earlier*

Understanding our vision regarding entitlements:

Dream Village Mapping:

The dream village mapping will enable the group to envision their ideal village with adequate resources and access to resources for health and nutrition.

Steps-

- Collect in group and engage each participant in sharing one dream that they have as far as health and nutrition is concerned.
- Facilitate them to spot it on a map of the village.
- Address and note solutions and a timeline to achieve those dreams
- Define role of each person in achieving the dream goals.

Resource Mapping

The resource mapping acknowledges that community, individuals hold capacity to bring change but can't do it alone.

Steps :

- Perceive a map with resources with community that they think important when it comes to health and nutrition of the community focusing on women and children
- Use local resources to draw map of the resources and their location.
- Map hinderances in obtaining and connecting to resources such as Sub- Center , PHC, AWC etc
- Actions to ensure enhanced access

END OF THE MEETING

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Understand various schemes pertaining to Social Protection and women's nutrition
- Discuss and fill the score sheet and entitlement assessment tool
- Encourage further planning to address bottlenecks in accessing entitlements.
- Note number of participants having received entitlements under these schemes

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 19: AVAILABILITY OF CLEAN DRINKING WATER AND ITS PROPER STORAGE OF WATER AT HOUSEHOLD LEVEL

Over the past several decades, ever-growing demands for – and misuse of – water resources have increased the risks of pollution and severe water stress in many parts of the world. The frequency and intensity of local water crises have been increasing, with serious implications for public health, environmental sustainability, food and energy security, and economic development. Demographics continue changing and unsustainable economic practices are affecting the quantity and quality of the water at our disposal, making water an increasingly scarce and expensive resource — especially for the poor, the marginalized and the vulnerable.

Availability of safe drinking water is an indicator of the health of a country. A developed country will be more efficient in collecting, cleaning and distributing water to consumers. Having access to an improved water source increases the likelihood that drinking water is clean and safe. But it doesn't guarantee that it is free from contamination. It is estimated that waterborne diseases have an economic burden of approximately USD 600 million a year in India. This is especially true for drought- and flood-prone areas, which affected a third of the nation in the past couple of years. Less than 50 per cent of the population in India has access to safely managed drinking water.

In this meeting, the facilitator will explain participants on availing safe and secure water and its natural storage

The objective of the meeting:	To sensitize participants on <ul style="list-style-type: none"> • Availing clean drinking water and • Proper storage of water at household level • water quality testing and its importance and • ways to sanitize and disinfect natural drinking water sources stories with community to generate awareness
Procedure	Discussion
Required Equipment	Notepad, pen, register
Time duration	1 hour

Availability of safe & clean drinking water:

Safe and secure water supply plays a crucial role in public health and well-being of the community. Every household needs water for a number of purposes, like drinking, cooking, washing of utensils, cleaning of the house, bathing, washing of clothes, personal sanitation, for household animals and watering of plants around the house, etc. Water sources include rain, streams, rivers, lakes, ponds, open wells, bore wells, tube wells, etc. These play a very vital role.

Under Jal Jeevan Mission programme of Government of India, which is implemented by Public Health Engineering Department(PHED) in Assam, Functional household tap connection, will be provided within premises, for every rural household with water supply of 55 litres per capita per day (lpcd). All public institutions (schools, anganwadis, health centres) to have access to safe and adequate drinking water.

Rooftop rainwater harvesting:

Rainwater harvesting has two components: recharge and storage. It is collected from the roof of the house/building /structure. The collected water can be stored in a tank or be made to percolate into the ground and thereby, recharge the level of groundwater. Recharge of harvested rainwater is less expensive and is a very effective method to augment the groundwater level of the area. The gram panchayat may install roof rainwater harvesting systems for all institutions in their jurisdiction that have feasible structures. It may also encourage all individual households having these structures to take up roof rainwater harvesting. Recommended are the dos and don'ts while opening for roof top rainwater harvesting:

Dos	Don'ts
Clean roof top before the monsoon	Use structures having asbestos sheet roofs
ii. Adopt suitable filtration method, material to filter rainwater and undertake regular maintenance.	Dump left over materials on the catchment roofs.
Ensure use of good quality material for repair and plumbing work	Undertake direct or manual lifting of stored water
Undertake regular and proper maintenance and painting of masonry tanks	Allow entry of direct rainwater from the roof to store or recharge without filtration
Clean storage tanks before every monsoon season	Collect first rainfall of the monsoon, directly or indirectly, for recharging
Install sunlight protective lids with proper manhole on the storage tanks	----
Monitor stored water against any chemical or bacterial contamination	----
Flush out water from the first rainfall	---
Connect rooftop rainwater harvesting systems to a groundwater recharge system to adjust overflow of waste	----

Sanitization and disinfection of the natural drinking water reserves

The goal of disinfection of public water supplies is the elimination of the pathogens that are responsible for waterborne diseases. The transmission of diseases such as typhoid and paratyphoid fevers, cholera, salmonellas is, and shigellosis can be controlled with treatments that substantially reduce the total number of viable microorganisms in the water.

Water quality testing & its importance

Availing services of PHED District level laboratories & sub divisional level laboratories

Safe drinking water should have following characteristics:

- Free from pathogenic (disease causing) organisms
- Clear (i.e., trace turbidity, no colour)
- Not saline (salty)
- Free from offensive taste or smell
- Free from compounds that may have adverse effects on human health (harmful in the long term)

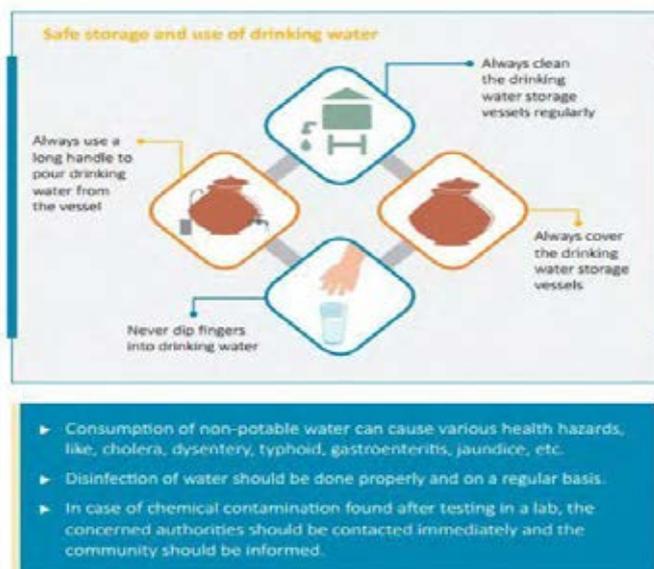
- Free from chemicals that may cause corrosion of water supply system, effect human health or stain clothes washed in it

Water borne disease constitutes a major fraction of the public health risk in the developing countries. Diarrhoea alone, a life-threatening symptom of a number of waterborne diseases such as typhoid, cholera, and bacillary dysentery, kills 1.5 million people every year most of them children under the age of five.

Water borne diseases can be minimized by keeping the water source pollution free.

Water contamination occurs when:

- Humans or animals defecating near the water sources
- Unscientific toilets
- Bathing and cleaning near water source
- Washing clothes or utensils near the water source
- Release of harmful chemical into the rivers and ponds
- Tube well without platform



To have microbiological contamination free drinking water, following household level precautions are recommended that ensure proper storage and handling of drinking water:

- Boiling water to make it bacteria free before drinking
- Covering the storage pot and keeping the water storage pot in elevated place
- Using long handled mug to fetch water out from the storage pot

As such, safe water must be free from bacteriological and chemical contamination and should be odourless, palatable and good for housekeeping. To know it, routine monitoring and analysis of water quality is very important. For chemical examination water quality should be tested at least twice a year in all types of drinking water sources preferably pre and post monsoon. Testing frequency for bacteriological examination is varies from type to type: for tube well with hand pump - once in a month; for open wells/ dug wells - twice in a month and for piped water supply -twice in a month & residual chlorine once in week. Acquiring pure drinking water is a major concern, mainly in rural parts of many Assam. The major water quality issues prevailing in

Features of safe toilet

- i. Flies and animals cannot access excreta
- ii. No handling of fresh excreta by humans
- iii. No odours or unsightly conditions
- iv. Surface soil, ground and surface water should be free from faecal contamination

the state of Assam are Iron, Arsenic, Fluoride and Bacteriological contaminations. Also, in Assam, water borne diseases due to microbial contamination are of great concern during flood. In monsoon, there is an increased susceptibility of water borne diseases and thus epidemics of water borne diseases like cholera, Typhoid, Diarrhea and Jaundice are also common during floods and monsoon season. Lack of awareness and unhygienic practices prevalent among the rural population intensifies the severity of such water borne diseases.

Sanitization and disinfection of the natural drinking water reserves

The gram panchayat/Village water sanitation committee (VWSC) may carry out a village sanitary survey of drinking water and supply schemes at fixed intervals: typically, before the monsoon season, in the month of April and after the monsoon, i.e., in the month of October. The purpose of the survey is to identify possible reasons for water contamination, if any, and mitigation measures. All gram panchayat/VWSC members, ward members, village water person, men, women and youth may participate in the survey

Public Health Engineering Department (PHED) Government of Assam is providing safe drinking water in rural areas along with rapid assessment of water quality. At present, APHED has state level (1 nos), divisional level (25 nos), sub-divisional level (52 nos) and mobile laboratories (2 nos) water testing laboratories in Assam working under the guideline of Jal Jeevan Mission of Govt. of India. Besides, for sensitising the community on water quality issues, PHED Assam has developed various awareness generation activities in schools and community. For more details, visit water quality information system at <https://neer.icmr.org.in/website/main.php>

END OF THE MEETING

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Avail clean and safe drinking water
- Practice rain water harvesting at household level and encourage community for the same
- Have a better understanding on water quality testing and its importance and
- Practice and share ways to sanitize and disinfect natural drinking water sources stories with community to generate awareness

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 20: AVAILABILITY OF HOUSEHOLD TOILET, ITS USAGE AND CLEANING

Whether in the cities or the countryside, open defecation has historically been most prevalent among the poorest citizens. This practice amounted to tons of faeces introduced *daily* into the environment, which regularly exposed India's children to excrement through direct contact. The risk of spreading diarrheal and waterborne diseases is compounded by the lack of regular hand washing and microbial contamination of water in their homes and communities. The situation contributed to nearly 100,000 diarrhoeal deaths of children under five years in India.

Poor sanitation can also have a ripple effect when it hinders national development because workers are suffering from illnesses and living shorter lives, thereby producing and earning less, and unable to afford education and stable futures for their children. Inadequate water, sanitation and hygiene (WASH) services in India's health facilities, contributes to the high neonatal mortality rate, which is currently 24 deaths per 1000 live births. Sepsis – mostly spread in health facilities – contributes to 15 per cent of the overall neonatal mortality and 11 per cent of maternal deaths. And the risks do not end there when they are brought home to a community that lacks toilets.

In this meeting, the facilitator will sensitize participants on availing household sanitary toilets and maintaining its cleanliness.

The objective of the meeting:	To sensitize participants on <ul style="list-style-type: none"> • Availing household sanitary toilet • Importance of hand washing • Operation & Maintenance of household sanitary toilets
Procedure	Discussion
Required Equipment	Notepad, pen, register
Time duration	1 hour 30 minutes

Availability of household sanitary toilet

A sanitary toilet is a device for disposing excreta into a covered pit and creating a sanitary barrier (water seal) to prevent excreta from having human contact (through any carrier, air, water, hands etc.). Component of a rural sanitary toilets are

Rural pan with water seal

A junction box which connects the pan with the pits

A leach pit having a cover

The Swachh Bharat Mission (Grameen), a flagship programme of Government of India envisions to make India open defecation free by making sanitary toilets accessible to all. The diagram below will give a view about the beneficiaries and the details of sanitary toilet made under SBM G, in Assam:

Retrofitting of toilets

Toilets need to be retrofitted or repaired to fix technical aberrations, if any, to manage safe disposal of excreta and to make them user-friendly so as to ensure sustained use of toilets.

Operation & Maintenance of household sanitary toilets

Clean your toilets regularly with water & broom

If any latches or doors of the toilet break, repair it

Check the Y junction facility regularly and keep that area clean

If there is any leakage in the Y junction or the pipes connected to pits, immediately repair it.

Before use, pour small quantity of water to wet the pan, and then use, it will keep the pan clean and will reduce the amount of water required for flushing.

When the first pit gets full (or after 3-4 years) divert the change over facility and start using the second pit.

END OF THE MEETING

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Have a better understanding on importance of availing household sanitary toilet
- Understand and share operation & Maintenance of household sanitary toilets
- Note number of participants having a functional sanitary toilets

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 21: MAINTENANCE OF HYGIENE, HOUSEHOLD WASTE DISPOSAL & MANAGEMENT

Good hygiene is an important barrier to many infectious diseases, including the faecal–oral diseases, and it promotes better health and well-being. To achieve the greatest health benefits, improvements in hygiene should be made concurrently with improvements in the water supply and sanitation, and be integrated with other interventions, such as improving nutrition and increasing incomes. The next sections discuss how to improve personal and community hygiene practices that help to prevent the spread of faecal–oral diseases.

In this meeting, the facilitator will sensitize participants on maintenance of hygiene, Household Waste Disposal & management

The objective of the meeting:	To sensitize participants on <ul style="list-style-type: none"> • Importance of hand washing, community and food hygiene • Operation and maintenance of household sanitary toilets
Procedure	Discussion
Required Equipment	Notepad, pen, register
Time duration	1 hour 30 minutes

Proper hand washing is one of the most effective ways of preventing the spread of diarrhoeal diseases. Pathogens cannot be seen on hands, and water alone is not always sufficient to remove them. Soap and wood ash are both cleansing and disinfecting agents when used with water and can be used to kill pathogens on hands and utensils.

Importance of hand washing with soap at critical times & during pandemic

Hand washing with soap is one of the cheapest, most effective things to protect oneself and others against coronavirus, as well as many other infectious diseases. As the pandemic continues its spread, hand washing can act as a key prevention measure against COVID-19. Parents and caregivers should wash their hands with soap and water at these critical moments:

- (1) after cleaning the infant or young child who has defecated,
- (2) after helping the child use the toilet or latrine,
- (3) after going to the latrine or toilet themselves,
- (4) before touching food and feeding young children, and
- (5) after dealing with refuse because washing hands with soap and clean running water kills and removes germs, leaving the hands clean.

Always wash your hands with clean water and soap before:

- preparing/serving/eating meals,
- before feeding children,
- after using the toilet/latrine
- after disposal of faeces, including children's.

The simple habit of hand washing with soap protects children from hygiene related diseases like diarrhea, cholera, among others.

Most illnesses and deaths among children are because of germs, which get into the child's mouth via food and water. Washing hands can also prevent infection with worms. Children are easily infected with worms, which deplete the body's nutrients

Community hygiene

Community hygiene Some health measures can be undertaken only by the community as a whole; these include water source protection, proper disposal of solid waste and excreta, wastewater drainage, controlling animal rearing and market hygiene. Some of these issues have been described in earlier sections. Individual community members play an important role in community hygiene, and have a responsibility to their neighbors and to the community to promote good health and a clean environment. For example, everyone in the village must keep their houses and compounds clean, because one dirty house can affect many conscientious neighbors and contribute to the spread of disease. Community leaders can promote cleanliness in the home by regularly checking on village households and by using by-laws to encourage household maintenance.

Food hygiene

Contaminated food represents one of the greatest health risks to a population and is a leading cause of disease outbreaks and transmission. Food that is kept too long can go bad and contain toxic chemicals or pathogens, and foodstuffs that are eaten raw, such as fruits or vegetables, can become contaminated by dirty hands, unclean water or flies. Improperly prepared food can also cause chemical poisoning: To promote good health, therefore, food should be properly stored and prepared.

As most food is likely to be prepared in the home, it is important that families understand the principles of basic hygiene and know how to prepare food safely. Before preparing food, hands should be washed with soap or ash. Raw fruit and vegetables should not be eaten unless they are first peeled or washed with clean water. It is also important to cook food properly, particularly meat. Both cattle and pigs host tapeworms that can be transferred to humans through improperly cooked meat; for this reason, raw meat should never be eaten. Eggs, too, must be cooked properly before eating, since they may contain salmonella, a virulent pathogen. The kitchen itself should be kept clean and waste food disposed of carefully to avoid attracting vermin, such as rats and mice, that may transmit disease.

Keeping food preparation surfaces clean is critical, because harmful organisms can grow on these surfaces and contaminate food. Fresh meat should be cooked and eaten on the same day, unless it can be stored in a refrigerator; if not, it should be thrown away. Cooked food should be eaten while it is still hot and should not be left to stand at room temperature for long periods of time, since this provides a good environment for pathogens to grow. Food that is ready to eat should be covered to keep off flies and should be thrown away if not eaten within 12–16 hours. If food must be stored after cooking, it should be kept covered and in a cool place, such as a refrigerator. If a refrigerator is not available, food can be stored on ice blocks or in a preservative such as pickling vinegar or salt. Food that is already prepared, or food that is to be eaten raw, must not come into contact with raw meat as this may contain pathogens that can contaminate the other foods (particularly if slaughtering was not carried out hygienically)

Faecal Sludge Management (FSM)

Faecal sludge is the waste accumulated in a septic tank which is a raw or partially digested mixture mostly of excreta and water. Faecal sludge management involves the collection, transportation, treatment and disposal of sludge from on-site sanitation systems in a safe manner. Faecal sludge management (FSM) is the proper management, collection, transport and treatment of faecal sludge or the faecal matter from single pit latrines, septic tanks or other on-site sanitation systems.

Why should faecal sludge be managed?

- Single pits and septic tanks do not treat the sludge within.
- Households do not know the when or how of desludging.
- When a single pit is full the toilet may be blocked, leading to open defecation(OD).
- Overflows from filled-up septic tanks and indiscriminate disposal of fecal sludge cause spread of diseases and environmental pollution.

Operation & Maintenance of household sanitary toilets

- Clean your toilets regularly with water & broom
- If any latches or doors of the toilet break, repair it
- Check the y junction facility regularly and keep that area clean
- If there is any leakage in the Y junction or the pipes connected to pits, immediately repair it.
- Before use, pour small quantity of water to wet the pan, and then sue, it will keep the pan clean and will reduce the amount of water required for flushing.
- When the first pit gets full (or after 3-4 years) divert the change over facility and start using the second pit.

DONTS X

- Do not use both the pits at the same time.
- Do not use caustic soda or acid for cleaning the pan.
- Do not throw sweepings, vegetables, rags, cotton waste and cleaning materials like corn cobs, mud balls, stone pieces etc. in the pan or pits.
- Do not allow rain water, kitchen or bath waste water to enter the leach pits
- Do not throw cigarette butts in the latrine
- Do not desludge the pits before one /one and half year of its being out of use

Safe Disposal of menstrual waste:

Managing menstruation in a hygienic way involves not only access to basic sanitation facilities, soap and water but also to so-called menstrual absorbents. Every adolescent girl and woman should use menstrual absorbents based on informed choice. As per MHM guidelines, ‘Safe disposal’ means ensuring that the process of destruction of used and soiled materials is done without human contact and with minimal environmental pollution. ‘Unsafe disposal’ means throwing used cloth into ponds, rivers, or in the fields exposes others in the area to decaying material and should be avoided

Menstrual waste management (MWM) refers to the scientific and safe disposal of used menstrual absorbents with privacy and dignity to prevent harmful effects on the environment. Infrastructure

with adequate water, cleaning agents and systems must be provided for MWM. The process of disposal and destruction of used menstrual materials must be done with minimal human contact and with minimal environmental pollution. It is important to provide safe menstrual waste disposal options and ensure that girls and women know how to use them. General practice must evolve from being unsafe to safe, as unsafe disposal is unacceptable.

According to the Central Pollution Control Board's guideline on Management of Sanitary Waste, 2018, deep burial, composting, pit burning and incineration (low-cost, small-scale, electric and high temperature biomedical incinerators) are some of the methods that should be adopted to dispose such waste.

END OF THE MEETING

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Have a better understanding on importance of handwashing, community and food hygiene.
- Understand and share ways to dispose and manage household waste
- Note number of participants practicing waste management

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 22: SEGREGATION OF DRY & LIQUID WASTE AND DEGRADABLE & NON-DEGRADABLE WASTE

Why waste management?

Environmental sanitation is important to improve the quality of life of the rural population. Appropriate management of solid waste and liquid waste, generated locally, helps in improving the overall cleanliness, health conditions, sanitation and hygiene. Though the solid and liquid waste generated in rural areas is predominantly organic and biodegradable, it has become a major challenge in terms of environment cleanliness and of late emerging as a threat to public health. The waste generated, if not treated and managed scientifically, adversely affects public health and the environment.

In this meeting, the facilitator will sensitize participants on Importance and ways of segregating dry and wet/liquid waste.

The objective of the meeting:	To sensitize participants on importance and ways of segregating dry and wet/liquid waste and Degradable & non degradable waste
Procedure	Discussion
Required Equipment	Notepad, pen, register
Time duration	1 hour 30 minutes

What is waste?

Waste is any item beyond use in its current form and is discarded as unwanted. It can be solid or liquid with respective management methods.

Solid waste

Organic and inorganic materials produced from households, commercial and industrial establishments that have no value to the owner are defined as garbage or solid wastes. Any waste other than human excreta, urine and waste water is called solid waste.

Liquid waste

Used and unwanted water is called waste water or liquid waste

Waste segregation is the separation of wet waste and dry waste. The generation of waste is unavoidable, and the materials carried in this waste impacts human and environmental health. Naturally, waste management is something that must be carried out, and one way to do this meticulous segregation of wet and dry waste, so that dry waste can be recycled and wet waste can be composted.

When we segregate waste, there is reduction of waste that reaches landfills and occupies space. Air and water pollution rates are considerably reduced, and makes it easier to apply different processes – composting, recycling and incineration can be applied to different kinds of waste. Waste management starts at the household level, and is not that difficult to achieve. Even a few minor changes can go a long way. Firstly, have two garbage disposal bins at home, one for dry waste and one for wet waste. Items like aluminium foils, tetra packs, glass, paper, plastics, metals, etc. fall under the dry waste category, whereas kitchen waste such as stale food, fruits and vegetables come under wet waste.

It is important to make sure that wet waste is thrown out of the house on a daily basis. Dry waste can be discarded twice or thrice a week. Ensure that plastic containers thrown in the dry waste bin are void of any food residue. Besides taking measures at an individual level, try involving like-minded people and form a community solely dedicated to waste management in your apartment complex. Introduce two separate disposal drums on your complex ground, and explain to people the importance of this segregation. The process of waste segregation should be thoroughly explained to family and neighbours in your apartment building. Create awareness amongst the staff in the apartment building to help make the process easier.

The importance of waste segregation in the world cannot be understated. Waste Segregation is the first step in a compliant waste management plan that will help the save the environment and improve the quality of the atmosphere we live in. It really does matter which bin you put the garbage into.

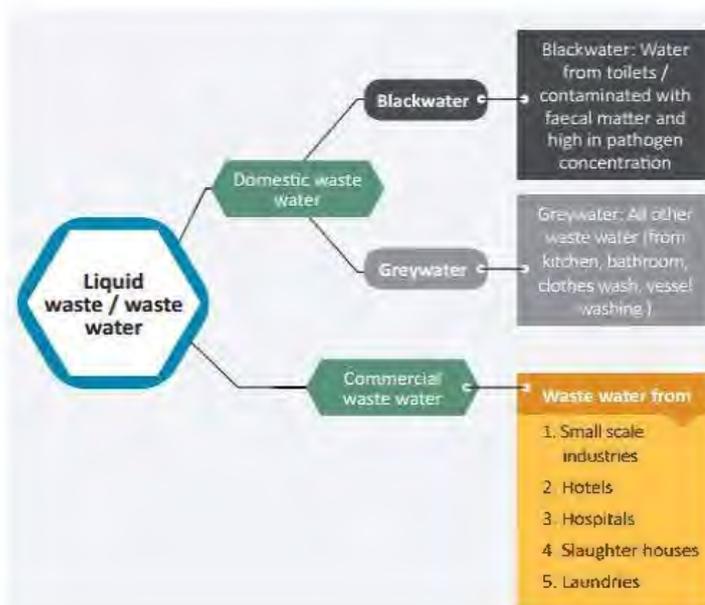
If done in a proper manner, waste management not only eliminates the surrounding waste, but also will reduce the intensity of the greenhouse gases like methane, carbon monoxide which gets emitted from the wastes accumulated. The depth of the existing landfills will be also curbed, thereby cutting down whatever is toxic to the environment. The number of fossil fuels will also get reduced in this manner, leading to a cleaner and a greener environment. (source: Youth incorporated 2017)



Composting is a method of solid waste management whereby the organic component of the solid waste is biologically decomposed and stabilized under controlled conditions to a state where it can be handled, stored and/or applied to the land without adversely affecting the environment. The process allows the development of thermophilic temperatures and as a result of this biologically produced heat, the final product (compost) is stable, free of pathogens and plant seeds and can be beneficially applied to land. It can be both household level & community level.

Types of liquid waste:

Villages should have individual / community soak pits for greywater generated from kitchen use and bathing, and storm water. Provision may also be made for appropriate treatment systems for any black water from the overflow of septic tanks, as may be the need. Department of Drinking Water and Sanitation promotes soak pits as the preferred method to manage grey water in the rural areas. SHGs can involve in construction of soak pits. However, soak pits are not advisable in areas where water table is high or its flood prone.



Segregation of degradable and non degradable waste

Importance of segregating waste:

Segregation of waste is important for properly disposing of the huge amount of garbage in an environmentally conscious manner. We segregate our biodegradable and non-biodegradable wastes so that all biodegradable can be used as fertilizers while the non-biodegradable can be recycled to make different creative products and for energy saving.

Difference between Biodegradable and non-biodegradable

S.No	Biodegradable	Non-Biodegradable
1	Degradation process in Biodegradable waste is rapid	Degradation process in Non-Biodegradable waste is slow
2	Biodegradable waste is decomposed and degraded by microbes	Non-Biodegradable waste cannot be decomposed by microbes
3	Biodegradable waste is not accumulated but are used up in a short time	Non-Biodegradable waste often accumulate
4	Biodegradable waste become part of biogeochemical cycles and give back rapid turnover	Most of the Non-Biodegradable waste never enter into biogeochemical cycles, very slow and toxic
5	Biodegradable waste is used to produce energy manure, compost and biogas	Non-Biodegradable waste can be separated and recycled but the process is very expensive

Effects of Waste Material on Environment

Waste quantities are generally growing in all countries all around the world. Every year billions of tons of waste are generated. These wastes are the result of activities in our homes, businesses and industries and disposal of all this large amount is an enormous environmental problem with many

dimensions. Municipal, industrial and agricultural solid waste and biomass deposits cause large scale pollution of land and water. The generation of waste causes a loss of materials and energy and increases environmental costs on society for its collection, treatment and disposal. The impacts of landfill and incineration are significant because of their potential for greenhouse gas emissions (methane, carbon dioxide) and trans-boundary migration of organic micro-pollutants (dioxins and furans) and volatile heavy metals. Problems with waste are as old as the human race.

Very soon humans realized that waste are a potential source of diseases and infections, so they dump their waste, which was totally biological, away from their settlements. The first organized municipal dump is in 500 BC outside ancient Athens in Greece, where regulations required waste to be dumped at least a mile from the city limits and covered with soil. Until industrialization of society waste was mostly organic, so they can decompose naturally. Later, mostly because of industrialization, urbanization, and developing of consumer society amount of waste increase very fast.

Plastic waste Management & Plastic Waste Management Units (PWMU) in blocks

SHG members, community & service providers should be educated on 5R's - Reduce, Reuse, Refuse, Recycle & Repair - to make people aware of the ways to minimize the plastic waste generated at their homes and villages. Plastic especially single use plastic is a great threat to our environment.

Plastic waste management refers to the collection, storage, transportation, and disposal of plastic waste in an environmentally safe manner. For plastic waste management in rural areas, plastic waste management unit (PWMU) will be constructed by Swachh Bharat Mission (Gramin) and its O & M will be done by Gram panchayats. PWMU will carry out the following functions: a) Segregation, collection, storage, transportation of plastic waste and channelization of recyclable plastic waste fraction to recyclers having valid registration; ensuring that no damage is caused to the environment in the process b) Awareness generation among all stakeholders about their responsibilities c) Prevention of open burning of plastic waste Implementation of Plastic Waste Management would involve the following- Storage Facility at Village level & Material Recovery Facility/ Plastic Waste Management Unit at District / Block level.

END OF THE MEETING

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Have a better understanding on effects of waste material on environment and types of waste management
- Share Importance and ways of segregating dry and wet/liquid waste with community to generate awareness
- Note number of participants managing solid and liquid waste management
- Note number of participants segregating degradable and non degradable waste

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 23: REUSE AND RECYCLE OF WASTE

As a State, we are generating more garbage. We don't know what to do with it. Irresponsible disposal of this waste is polluting the environment and poses a public health risk. Present disposal methods threaten our health, safety, and environment, and pose additional indirect costs to society. Most industrial, commercial, and household waste is now disposing of in landfills or surface impoundments. Waste treated in this manner is contaminating groundwater, rivers, and streams. Burning of waste releases hazardous gases into the air. The solution to this problem is reuse and recycle.

The objective of the meeting:	To sensitize participants on reusing and recycling waste
Procedure	Discussion
Required Equipment	Notepad, pen, register
Time duration	1hour

Based on previous sessions, the facilitator will now share various scopes reusing and recycling waste

Recycling involves the collection of used and discarded materials processing these materials and making them into new products. It reduces the amount of waste that is thrown into the community dustbins thereby making the environment cleaner and the air fresher to breathe.

Surveys carried out by Government and non-government agencies in the country have all recognized the importance of recycling wastes. However, the methodology for safe recycling of waste has not been standardized. Studies have revealed that 7 %-15% of the waste is recycled. If recycling is done in a proper manner, it will solve the problems of waste or garbage. At the community level, a large number of NGOs (Non-Governmental Organizations) and private sector enterprises have taken an initiative in segregation and recycling of waste (EXNORA International in Chennai recycles a large part of the waste that is collected). It is being used for composting, making pellets to be used in gasifiers, etc. Plastics are sold to the factories that reuse them.

The steps involved in the process prior to recycling include

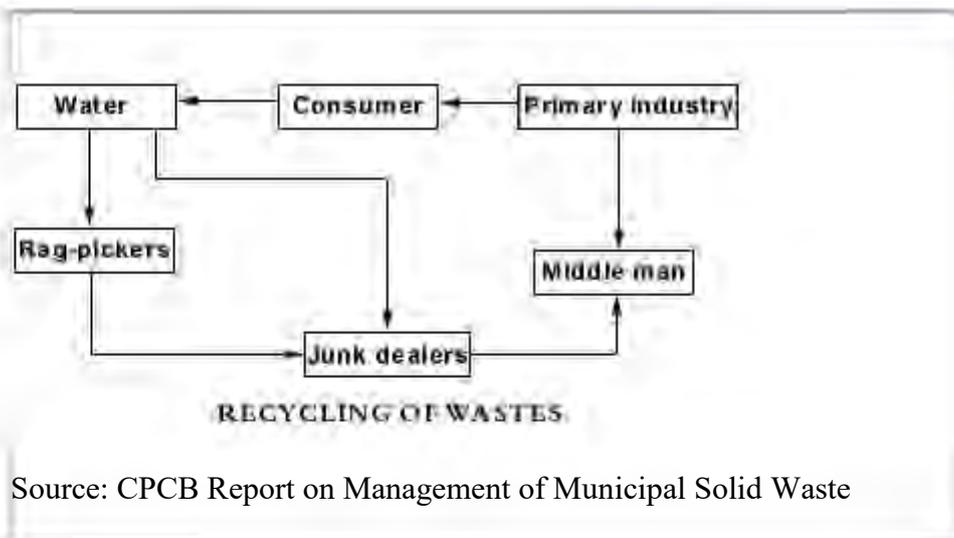
- a) Collection of waste from doorsteps, commercial places, etc.
 - b) Collection of waste from community dumps.
 - c) Collection/picking up of waste from final disposal sites.
- Most of the garbage generated in the household can be recycled and reused. Organic kitchen waste such as leftover foodstuff, vegetable peels, and spoilt or dried fruits and vegetables can be recycled by putting them in the compost pits that have been dug in the garden. Old newspapers, magazines and bottles can be sold to the kabadiwala the man who buys these items from homes.

In your own homes you can contribute to waste reduction and the recycling and reuse of certain items. To cover your books you can use old calendars; old greeting cards can also be reused. Paper can also be made at home through a very simple process and you can paint on them.

Some items that can be recycled or reused

Paper	Old copies Old books Paper bags Newspapers Old greeting cards Cardboard box
Plastic	Containers Bottles Bags Sheets
Glass and ceramics	Bottles Plates Cup Bowls
Miscellaneous	Old cans Utensils Clothes Furniture

The schematic diagram below depicts recycling of wastes



Waste recycling has some significant advantages. It

- leads to less utilization of raw materials.
- reduces environmental impacts arising from waste treatment and disposal.
- makes the surroundings cleaner and healthier.
- saves on landfill space.
- saves money.
- reduces the amount of energy required to manufacture new products.

In fact, recycling can prevent the creation of waste at the source.

END OF THE MEETING

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Have a better understanding on scopes reusing and recycling waste
- Share ways of reusing and recycling with community and encourage its practice.
- Note number of participants reusing and recycling waste

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.

MEETING 24: DEVELOPMENT OF SANITATION RELATED ENTERPRISE

Based on previous sessions, the facilitator will now share various scopes of developing sanitation related enterprise and discuss possibility of adoption different CLFs.

The objective of the meeting:	To sensitize participants on <ul style="list-style-type: none">• Importance and 6 ways of developing sanitation related enterprise.
Procedure	Discussion
Required Equipment	Notepad, pen, register
Time duration	1hour 30 minutes

I. Income generation through Rural Sanitary mart (RSM)

In many areas of Assam, good quality sanitary material and hardware are accessible through the market with the private sector providing such material competitively. In such areas, RSMs are not required. However, in some areas/pockets, the penetration of sanitary materials in the market is still inadequate. In such cases, the Rural Sanitary Marts (RSM) and Production Centres (PC) can be initiated. The Rural Sanitary Mart (RSM) is an outlet dealing with the material, hardware and designs required for the construction of sanitary latrines, soakage and compost pits, vermi-composting, washing platforms, certified domestic water filters and other sanitation and hygiene accessories. The primary aim of an RSM is to provide materials, services and guidance needed for constructing different types of latrines and other sanitary facilities in close proximity to the beneficiaries. RSMs need to ensure that a variety of pans (Rural, ceramic, HDP, fiber glass) are available for the beneficiaries at reasonable rates. RSM should especially have those items required as a part of the sanitation package. It is a commercial venture with a social objective.

Rural Sanitary Marts could become an important source for strengthening supply chain for materials required to build individual household latrines, community, school and Anganwadi toilets and supporting implementation of SLWM arrangements. CBOs / NGOs / SHGs / other organisations may be engaged effectively in ensuring quality bulk supply of hardware for toilets, CSCs and SLWM interventions. RSMs can also enter into agreements with Blocks / Districts for operation and maintenance of Community sanitary complex (CSC) and SLWM assets created in villages.

II. income generation through Low-cost handwashing stations

Low-cost handwashing stations can be made in institutions like AWC, Schools, Health Centres, to ensure simple, scalable and sustainable handwashing practice. SHGs can initiate manufacturing low- cost handwashing stations in their areas, this will be an opportunity for income generation as well as availability of the same in local areas.

The design below can give an idea about low-cost handwashing stations:

Low cost waste tank used hand wash station		Itemized cost estimate																																																				
 <p>Picture shown is for representational purpose only, a distance of atleast 1 meter to be ensured between two users.</p>		<table border="1"> <thead> <tr> <th>S.N.</th> <th>Item</th> <th>Qty.</th> <th>Unit</th> <th>Rate, INR</th> <th>Amount INR</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Plastic drum</td> <td>1/2</td> <td>No.</td> <td>1000</td> <td>500</td> </tr> <tr> <td>2.</td> <td>Taps</td> <td>4</td> <td>No</td> <td>130</td> <td>520</td> </tr> <tr> <td>3.</td> <td>Pipe (1 M)</td> <td>1</td> <td>RMT</td> <td>100</td> <td>100</td> </tr> <tr> <td>4.</td> <td>Structure Frame</td> <td>1</td> <td>No</td> <td>1500</td> <td>1500</td> </tr> <tr> <td>5.</td> <td>Fabrication charges</td> <td>1</td> <td>No</td> <td>500</td> <td>500</td> </tr> <tr> <td>6.</td> <td>Painting</td> <td>1</td> <td>No</td> <td>100</td> <td>100</td> </tr> <tr> <td colspan="5">Total, INR</td> <td>INR 3200 USD 42</td> </tr> </tbody> </table>					S.N.	Item	Qty.	Unit	Rate, INR	Amount INR	1.	Plastic drum	1/2	No.	1000	500	2.	Taps	4	No	130	520	3.	Pipe (1 M)	1	RMT	100	100	4.	Structure Frame	1	No	1500	1500	5.	Fabrication charges	1	No	500	500	6.	Painting	1	No	100	100	Total, INR					INR 3200 USD 42
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III. Manufacturing low cost bio degradable pads from low cost locally available materials Availability of sanitary napkins

The key barrier to usage of commercial sanitary napkins is often the price,⁵ and in very remote areas also the access. To overcome this barrier, low-cost napkins, which are locally produced by self-help groups, or by girls and women themselves are a good option. (National MHM guideline 2015) According to Menstrual Health Alliance India, one sanitary pad could take 500 to 800 years to decompose as the plastic used is non-biodegradable and can lead to health and environmental hazards.

If Self Help group members are trained in developing low-cost biodegradable sanitary pads/napkins, it will benefit both adolescent girls, women and the Environment. Low-cost biodegradable sanitary pads, are affordable and can be made available, if it is developed by SHG members who have a strong presence across the State, even in the remote areas. During outbreaks of Pandemic like COVID 19, availability of menstrual absorbents like sanitary pads etc were a great challenge for adolescent girls & women. Interventions in manufacturing low cost bio degradable pads can ensure availability, scalability & sustainability.

Linkages with Market

If any SHG members / groups are taking initiatives in manufacturing low cost bio degradable sanitary pads, their product should be linked to rural & urban markets for better income generation as well as reach.

IV. Income & Employment generation through waste management:

Material collection facilities (MCF) are waste collection facilities at GP/village level. These are constructed by GPs in convergence with SBM G at GP level.

Employment generation through operating vehicles for waste collection to MCFs in GP. These waste collection vehicles are provided by SBM G to GPs in phase manner. O & M of the vehicles are responsibility of GPs.

The MCF will also have facility for production of vermin compost from the biodegradable waste. SHGs / NGOs etc who will run the MCF can sell of vermin compost/vermi wash etc which will ensure income generation

V. Market linked Solid Liquid Waste Management (SLWM) interventions

The avenues of engagement for engaging SHGs in rural sanitation could be:
(1) Infrastructure creation Providing technical assistance in developing innovative and low-cost models of latrine and SLWM infrastructure

(2) Operation and Maintenance Developing and disseminating sustainable business models for O&M of community and household level sanitation infrastructure

(3) Creation of market linkages Raising demand for sanitation value chain products by providing market linkages and financing options to local businesses

The above interventions would attract SHGs, entrepreneurs and voluntary organizations and promote revenue generation models for collection of waste, treatment and commercial sale of end products. (SBM G phase II guideline, Pg 49)

Converting waste to wealth

GOBAR-DHAN (Galvanizing Organic Bio Agro Resources Dhan) Scheme under the SLWM Component of SBM (G) is to ensure cleanliness in villages by converting bio waste including animal waste, kitchen leftovers, crop residue and market waste into biogas and compost to improve the lives of villagers. This will provide economic and resource benefits to farmers and households.

Various materials can be made from recycling plastic, which can be sold again. Various trainings are given by CIPET, Assam in this regard.

VI. Income generation through Fecal Sludge Management (FSM)

A number of actors are involved in managing faecal sludge in rural areas. These include households, service providers for emptying pits and septic tanks, service providers for transport of faecal sludge to treatment sites, service providers for treatment and disposal, GP, block and district government officials etc. In Assam, there are no organized or structured FSM operators. SHGs can invest in faecal sludge management plant or converge with Panchayats in taking care of desludging from households and institutions with more septic tanks. This will help in income generation through:

- Desludging fee
- Fee for disposing sludge at treatment plant by a private truck operator.
- Sale of treatment plant products such as manure, bio slurry, etc.
- User fee, taxes, grants
- Other sources – e.g., hoardings with advertisements at treatment plant

END OF THE MEETING

The facilitator will briefly explain everything about the meeting organized with the cooperation of the participants. The facilitator will be able to know how much the participants have understood and how much they have learnt from the meeting.

By the end of the meeting, the participants will be able to-

- Have a better understanding on income generation through sanitation linkages
- Share scopes of developing sanitation related enterprise and discuss possibility of adoption different CLFs
- Note number of participants involved in sanitation enterprise

Women should be encouraged to speak and give feedback on the meeting. At the end of the meeting, the volunteer will decide the date of the next meeting and give an outline of the next meeting.