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INTERNSHIP FINAL REPORT

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Country: Indonesia

ABSTRACT

Indonesia as a fast developing country in South East Asia has been faced the challenge of child health specially child malnutrition. The case is severe among rural poor as they face with economic issues, poor access to education and health services, severe droughts and other natural disasters. They are unable to bare these shocks which make them more vulnerable to ill-being and make poor quality of life. 36% of Indonesian children experience stunting, while 14% are wasting which are severe nutrition deficiencies of children⁴. The project; Rural Empowerment and Agricultural Development Scaling up Initiative (READ SI) by Ministry of Agriculture and International Fund for Agricultural Development (IFAD) Indonesia addressing this multifactorial issue at rural Indonesia with most vulnerable rural people as majorly concern of opportunities for income generation. The purpose of this field internship by Master of Development Practice (MDP) with READ SI is to facilitate the project process by mutual experience sharing to address malnutrition among communities through developing an action plan to implement in grass root level.

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LIST OF ABBREVIATIONS

BCC	Behavior Change Communication
BMI	Body Mass Index
ECD	Early Childhood Development
IFAD	International Fund for Agricultural Development
IPB	Institut Pertanian Bogor (Bogor Agricultural University)
MoA	Ministry of Agriculture
MDGs	Millennium Development Goals
MDP	Master of Development Practice
PKK	<i>Pemberdayaan Kesejahteraan Keluarga</i> (Empowerment of Family Welfare)
READ	Rural Empowerment and Agriculture Development
READSI	Rural Empowerment and Agriculture Development Scaling-up Initiative
SDGs	Sustainable Development Goals
UN	The United Nations
WHO	World Health Organization

BACKGROUND

Child malnutrition is one of major health issues that faces globally today even there are various measures have been taken to combat malnutrition. According to the World Health Organization (WHO) malnutrition refers to deficiencies, excesses or imbalances in a person's intake of energy and/or nutrients. Child malnutrition has several figures under nutrition, inadequate vitamins or minerals, overweight and obesity. Under nutrition refers to stunting, wasting and underweight. Stunting refers to low height for age, while wasting and underweight is low weight for height and low weight for age respectively. Lack of important vitamins and minerals called micronutrient deficiencies. Overweight and obese which are higher the weight for height which create severe cases non-communicable diseases may be fatal.

Compared to overweight, under nutrition is significant issue all over the world specially among developing countries. There are 150.8 million children are stunted globally in 2017, while 51 million children are wasted and 16 million are severely wasted¹. Stunting, wasting and severely wasted children are in percentages 22.2%, 7.5% and 2.4% respectively in 2017¹ estimates. The world shows a progress towards reduction of child stunting¹ by 47.6 million from 2000 to 2017.

What are the consequences of malnutrition? Damages of child under nutrition during the Early Childhood Development (ECD) stage are irreversible. ECD refers to first 1000 days of children from conception to child's second birthday. Malnourished babies show poor growth in both body and cognitive. When child receive poor nutrition, brain and neuron cells don't grow and developed. Child then malfunctions in language, reading, memory, calculation and creativity. Specially malnourished children achieve less in education, paid less in jobs and make less productivity in their later life. For long term consequences, poor child growth declines quality and productivity of country's labour force and finally the economic development.

Malnutrition causes child mortality. According to 2016 estimates global child mortality rate is 41 for 1000 live births². Globally 45% child deaths² are caused by under nutrition. Low and middle income countries are most vulnerable for higher child mortality rate. Malnourished children are vulnerable to diseases like diarrhea, pneumonia and other acute respiratory infections because of poor immunity. Significantly low socio economic status make the situations worse and studies have proven that poor children are more than double in risk to be

malnourished than rich families even in developing countries¹. Low income families have poor access to quality health care. It is unavailable and/ or unaffordable by poor especially in rural areas.

Under nutrition and disease prevalence has cyclic relationship. Under nutrition of child causes low weight gain or weight loss which affects for poor immunity and repeated infections such as diarrhea and measles etc. Infected baby gets less appetite and again continues the malnutrition cycle. Addressing malnutrition refers to break down of the cycle at any stage.

Indonesia, the largest country in South East Asia, where this MDP field training project went on has the issue of child under nutrition in significant level. Indonesia is the fourth largest population country of the world with 261 million³. Diversified ethnic groups, cultures, large number of islands and huge land area created different and specific root causes for child malnutrition in Indonesia.

Table no: 01- Indonesia child health indicators

Indicator	Estimated year	Result ⁴
Under 5 mortality rate (1000 live births)	2015	27
Stunting	2013	36%
Wasting	2013	14%

Indonesia has decreasing trend of poverty⁵ by half from 1999 to 2016 i.e. 10.9%, while being achieved the largest economy in South East Asia. Even though Indonesia performed one of the best growing economies, child stunting and wasting still remain in high percentages compared to world average. According to the previous studies, poor nutrition intake, poor water quality, improper hygiene practices, poverty and lack of policy coordination are some risk factors for malnutrition in Indonesia.

The world is experiencing continuous development and people enjoy better and better quality of life, but varies throughout the nations. Today the world targets are towards sustainable development, because now it had been realized that economic development is insufficient to improve people wellbeing, but all other sectors of society should be incorporated with. To make the concept of sustainable development realized, the United Nations (UN) declared Sustainable Development Goals (SDGs) followed by Millennium Development Goals

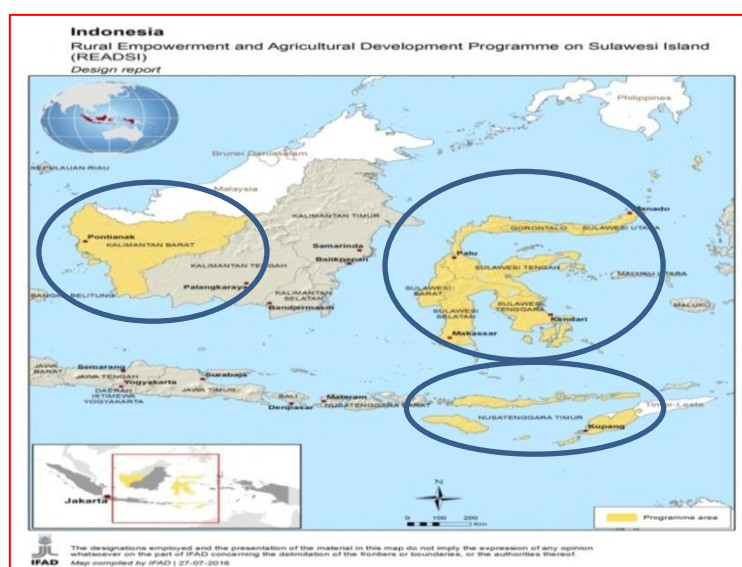
(MGDs) and UN member countries obliged to work for 17 universal goals from 2015 to 2030.

Goal 3; good health and wellbeing, has set targets to achieve global health. The goal has several targets to achieve by countries. Child mortality is a significant issue that should be addressed to achieve prosperity of a country as it is one of the fundamentals for many social, health and economic issues of the country. The new born are future sprit of a country and if they are not healthy enough countries may face many issues with labor force and their productivity. Interventions for child wellness are not a waste but an investment. Goal no.3 indicates in target 3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under 5 mortality to at least as low as 25 per 1000 live births⁶.

Community empowerment is the major concern of all social development projects as a sustainable measure of interventions. Projects less sustain when communities looking for grants or resources form outsiders or depend on a third party, rather than develop themselves sensible utilization of available resources.

The project Rural Empowerment and Agriculture Development Scaling-up Initiative (READSI) is funded by International Fund for Agricultural Development (IFAD) and Ministry of Agriculture (MoA) for empowering smallholder farmers for agricultural development in Indonesia. READ SI is an expansion of project Rural Empowerment and Agricultural Development (READ) which significantly impacted on rural poor farmers since 2009. The project area map is below.

Figure 01: Map of READSI project areas



READ SI nutrition implementation plan has concerned malnutrition in early childhood; first thousand days and age up to 5 years. Addressing child malnutrition is the smallest component of the project. Even though, addressing malnutrition collaborate with agriculture is an effective strategy.

During the internship period project was in its socialization stage.

The three months of internship with READ SI, an action plan has developed to implement at grass root level to combat malnutrition of children under age 5 in project areas. The action plan has been concerned Behavior Change Communication (BCC) approach. The approach facilitate behavior changes from unaware stage, aware, concerned, knowledgeable, motivation to change, practice trial behavior change and to sustainable behavior changes. Using effective communication strategies are facilitated the process.

OBJECTIVES

General objective

To develop an innovative and practical action plan for nutrition status improvement of rural children with project READSI from June to September 2018 in Indonesia

Specific objectives

- To identify nutrition needs of benefitted children
- To identify the obstacles and barriers for implementing the action plan
- To develop a monitoring mechanism for action plan

METHODOLOGY

The internship project went on Indonesia based on READ SI project office in MoA, Republic of Indonesia.

Project introduction:

Indonesian child malnutrition and health status, socio economic and cultural information were gathered in the first step of developing the action plan by interviews, research papers and online videos.

Data collection

Data were collected at three levels; national level, regional level and grass root level.

Formal and informal interviews had with national institutions; including the national project management team, IFAD officials, Food Security Agency; MoA and Department of Community Nutrition in Bogor Agricultural University (IPB). National policies for nutrition and food security, available community based organizations and institutions and already implemented grass root level interventions were explored through these interviews.

Interviews and questionnaire (Annex 01) were used to gather information from regional level; local government officials to understand the general socio economic status and health status of rural project areas.

Grass root level data were gathered from midwives, mothers who have children age under 5, preschool teachers (*Paud* teachers) and schooling adolescents. Selection of different types of beneficiaries was done for reason. Midwives are the grass root level health care facilitators and responsible for child and maternal health. Addressing child nutrition required their service. Mothers are the care givers of children who must be empowered for addressing family and community determinants of health to achieve healthy communities. *Paud* is the place where children aged 2 to 6 spends their day time and being socialized. In a *Paud* children could easily gather and convenience to conduct nutrition activities. Adolescents considered as future parents. Their health and wellness affects babies to born. For data collection 14 to 16 aged adolescents group was selected. Consideration of age 14 to 16 for the reason of legal age of marriage for a girl is 16 years in Indonesia.

From above stakeholders following data was collected; poverty and socioeconomic background, child health conditions, health services availability, sanitary and hygiene practices, adolescent and women health to identify determinants for child malnutrition. The study was Knowledge, Attitude and Practices (KAP) survey. Both qualitative and quantitative data were collected using following strategies.

Midwives- Questionnaire (Annex 02)

Mothers- Questionnaire (Annex 03), child 24 hrs dietary recall (Annex 03), BMI measuring activity and observations

Preschool teachers- Questionnaire (Annex 04) and observations

Schooling adolescents- Questionnaire (Annex 05) and BMI measuring activity

Local government Officials- Interviews (Annex 06)

All above questionnaires were translated to local language.

Sample size of questionnaires was not pre designed. They were decided by the availability of human resources during the field visits.

Field visits: Field visits were done for understanding reliable grassroots level circumstances.

- A visit has been done to a *Paud* (Named *Paud Melatijaya*), at *Pasar Minggu*, South Jakarta to have significance of *Paud* and its activities. (Annex 07)

Even though it's not a project area, this visit was done to experience a *Paud*. Inside and outside environment, monthly activity targets, child food practices and possible nutrition activities were identified.

- Second field visit was done to two villages named *Gandasari* and *Gangga*, *Sausu* sub district *Parigi Moutong* district, *Sulawesi Tenggara* province, Indonesia. (Annex 07)

Village *Gandasari* is and old READ project village and village *Gangga* is a new village selected for project READ SI. A qualitative comparison would be able to done between villages; READ intervention strategies, sustainability and project impact on peoples' quality of life improvement.

In the old READ village, village head, midwife, a mothers' group, a women group; *Pemberdayaan Kesejahteraan Keluarga* (PKK) called in local language, *Paud*, and schooling adolescents were met. During the visit midwife, all mothers of village and PKK members were gathered at the village head office. Teacher in charge of *Paud* was met at the *Paud*

itself, but being a holiday children were unable to meet. In the new READ SI village, village head and *Paud* teacher were met to collect data. Observation visits were did in both villages and understood behavior patterns and housing conditions.

Determinant identification:

Determinants have been identified by the data collected from questionnaires, interviews and field visit observations. The gathered data was thematically analyzed and concluded the major determinants for child malnutrition.

Developing action plan:

Action plan was developed to address identified determinants, which has two different levels to implement activities; grass root level and regional level. Relevant stakeholders, count of beneficiaries, resources required and desired outcomes has been included to the action plan.

Monitoring and evaluation tools and sample guidelines developed parallel to the action plan. In the instance of budget limitation to nutrition component low cost collective activities were developed for the action plan.

Review the action plan: Reviewing was done in several steps.

- First review was done after a one month of internship with project management team.
- 2nd review was done with Prof. Ali Khomsan and Dr. Sri Anna Marliyati from IPB.
- Final review was done with project management team, discussed the obstacles, suggestions, compared with cost table and finalized.

Final report submission and presentation:

The final report has been prepared during the internship period and after finalizing action plan and report a presentation has done to project management team.

Time frame

Table no: 02- Table of time frame

	Activity	June	July	August	September
01	Project introduction & back ground information collection to identify child nutrition status in Indonesia		Expected		
			Completed		
02	Identify determinants for child health issues with different stakeholders and develop action plan			Expected	
			Completed		
03	Field visits and amend the developed action plan further			Expected	
				Completed	
05	Review the draft and finalize the action plan				Expected
				Completed	
06	Preparation of final report				Expected
			Completed		
07	Final presentation				Expected
					Completed

	Expected
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	Completed
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RESULTS

By the field studies following determinants were identified.

Table no: 03- Thematic analysis result table

Factor	n	Government Stakeholders	Midwife	Mothers	<i>Paud</i>	Adolescents	Percentage
Poverty	28	√	√	√	√		96.4
Poor nutrition knowledge	6	√					66.6
Insufficient fruit consumption	32			√		√	50.0
Large time gap between child meals	20			√			100.0
Less food diversification	10	√		√			50.0
Poor access to animal products	11	√			√		100.0

‘√’ indicates data gathered groups

Case study 01

Ruwi is a mother from village X, who have 3 babies. The elder child is schooling and younger children are 1 years old twin. It is a farming family. They have their own small land to cultivate paddy. She maintains a small backyard garden for vegetables and fruits. Almost all their productions send to market and very little amount keep with them for their consumption. Poverty is an issue in the entire village and it affects Ruwi's family as well. Savior floods sometimes destroy whole lifestyle of villages. Her house is made of wood and the floor is cemented. In the morning her husband goes to paddy field. Ruwi clean the house, prepare foods, help her husband and evening gathering with neighbors and swim in the sea. She prepares rice and vegetables with fish or beef for every meal. Sometimes she prepares foods once for the whole day. The twins do not get sufficient breast milk. She has to buy milk powder, but poverty make barriers for affording milk. Ruwi is an active member of village women group and participate in social works in the village. She tries to dress well and keep the child clean even they are poor in income.

Case study 02

Yoko is a mother of one child family living in village Y. She lives in a small house made out of wood. Her child is 4 years old. He attends village *Paud*. In the Monthly clinic midwife said that he is underweight. Yoko struggles to earn living with her husband. They have very small land cultivated cocoa. Meanwhile she makes handicrafts and sends to market. But she is unable to receive a good income from both measures. Poverty makes them less affordable foods. Sometimes they eat once a day. They don't have water access either. Yoko has to go to mounting springs to fill their house water buckets. She has to work hard every day for household works. She has no time to spend with her child, feed him and clean. Instead of that she always tries to earn for living. Fortunately sometimes *Paud* provides a lunch for kids. The *Paud* is holding in an old dusty place and Yoko's child frequently gets sick. To take medicine she has to go to near town passing a river which don't have a bridge.

The final fruitful product of field training was the action plan which could be implemented at grass root level by READ SI developed to address determinants mentioned above. (Annex 08)

SWOT ANALYSIS



Figure no 02: SWOT analysis diagram

DISCUSSION

For a highly populated, multicultural country, developing an action plan even for selected project areas was a challenge specially who was an outsider to the country. Much time was taken; approximately half of internship period, to understand the situation of Indonesia; demography, health status, economy, culture and lifestyle patterns. Expend much time on background understanding is not consider an in vain; but an investment. A practical approach cannot be developed without considering social determinants. Determinants appear like an ice burg. There are more hidden factors that affect for health issues rather than visible factors.

Here in this nutrition action plan do not address such deep and hidden factors; poverty, road access and transport, education and unemployment etc. There are three reasons for not addressing these broad social determinants. One reason is that the project main objective is to improve agricultural functions of rural farmers, to increase their income and finance literacy. Malnutrition is a minor project objective respective to budget plan. Another reason is the project itself addresses several social determinants such as poverty, unemployment, and inequalities etc. by the rest of the project components. The last reason is to address such determinants need much time and policy reforms. In future, project lesson learning could guide for policy reforms. The visible determinants here are ore qualitative and not easy to analyze. Therefore case studies have been done to present qualitative observations.

The action plan and time frame was developed starting from an engaging activity; homestead garden promotion. Series of continuous interconnected activities developed followed by the engaging activity for three years. Homestead gardens promote by way of the first activity since under nutrition cannot combat without promoting food availability. Homestead gardens not only an engaging activity, but a trigger for future activities.

Women in rural areas are active income earners of families. They spend their day at farms and other income generation activities like making hand crafts and preparing foods to markets. They taking care of babies and engage daily household works. By the same time they are social and voluntary workers in villages. In Indonesia PKK makes them strong and empowered in social works. But they have to self-sustain in agriculture and prepared to shocks through they are poor and disaster vulnerable. READ SI implementation plan has concerned women separately to address child nutrition. As mothers/ women caregivers of children this concept is effective. Simultaneously male should be participated with child activities. It cannot divide that the responsibility of a child is only woman, but it stands with men. The action plan therefore encouraged family and community non discriminative activities to empower women. The leadership always given to women to plan and implement recommended activities.

Field visits experiences implicate that the rural villagers always looking for financial aids for their development. They need financial support indeed, for development projects and to improve village economic status. Even though they must be empowered to be self-sustain with available resources and to be develop with their own resources. Components of project READ SI support them to be empowered. The empowerment strategies of agricultural project

differ from health projects. The child nutrition action plan concerned knowledge improvement, attitude changes and behavioral practices. Addressing community health issues, following these steps are important to make sustain the project outcomes. Psychological theories like Stages of Change emphasizes that individual's attitude changes facilitate long lasting behavior changes. This action plan developed encourages behavior changes gradually followed by improving healthy attitudes.

Even though, attitude change is a difficult task when working in communities, specially relate to health interventions. Health benefits are not much visible as compared to financial or other tangible benefits such as infrastructures. Health benefits are subjective, time consuming to achieve results and progress depends on level of empowerment of target communities. To improve the rate of progress usually not targets individuals, but a whole community. Changes in community influence on individuals who perform slow progress and increase the rate. Therefore the action plan concerned collective and continuous activities. To complete all these activities allocated 3 years. These activities must not be an extra burden for women's day today activities.

The project concern most poor people and make them contribute to development of country by skills and technical knowledge improvement. The action plan for nutrition also concerned how to develop their health skills through capacity building programmes, demonstration campaigns and collective community actions.

Developing monitoring mechanism for the action plan was a challenge. No health specified field officer has been allocated because malnutrition is a pilot component for agricultural projects. Very specific, small changes measuring strategies therefore cannot apply. Instead, very simple and overall outcome and impact measuring evaluations has been developed.

According to observations of rural Indonesians lifestyle, they are heavy smokers. Tobacco smoke on one hand is causes many non-communicable diseases like cancer and cardiovascular diseases. Referencing to previous studies⁷ child malnutrition is closely associated with parental smoking and increase unnecessary expenditure in families. Even though tobacco use didn't consider and address by the nutrition action plan through required highly technical knowledge about tobacco and its impact on health, social and economy. The field workers then requested to be done extra trainings and the process would be complicated as well as not match with allocated budget.

Internship was a challengeable new environment. Professional skills were able to experienced and learnt by the skillful project staff such as planning and management of projects, organizing programmes with stakeholders and negotiation skills. Opportunities were to learn and practice different languages; English and Indonesian, cross culture understanding and cultural respect, computer skills and time management.

CONCLUSION

Diverse sector collaborate community projects should be encouraged as it develop quality of life of beneficiaries than by a single project, while it makes individual goals reliable with little effort. When integrated, field specific consultation is required for all stages of project management. The success of implementation of action plan is determined by on the grass root level government authorities' contribution, the quality of training programmes and understanding of the process by project management and implementers.

RECOMMANDATIONS

- Obtain consultation form nutrition specialist for NPMO.
- Give priority for mothers who have age under 5 malnourished children when forming women groups.

ANNEXES

Annex 01:

Questionnaire for identifying underlying factors for malnutrition in READSI provinces/ districts

Note: Please strikethrough the irrelevant answers that provide with in brackets.

Please try to provide descriptive answers to questions where relevant

General information

1. Province/ district:
2. Under 5 year population:
3. Child stunting rate:
4. Child wasting rate:
5. Is adult malnutrition an issue in your area? (Yes/ No)

Socio economic data

6. What is the main occupation of people in the area?
7. What are the other occupations that people engage with?
8. Is poverty a significant issue in the area? (Yes/ No)
9. What are the main factors for poverty of people in your area?
10. Please describe cultural habits that specific to your area:
11. Please describe daily activities of rural people in the area:
12. What is the role of rural women towards economic activities?
13. Are there any indigenous people in the area? (Yes/ No)
14. If answer is yes to above question, please describe their cultural practices?
15. What are the social services available for rural people to develop their quality of life?
16. If available, who are the social service providers? (Government/ Private sector/
NGOs)
17. Are there preschools (Paud) available? (Yes/ No)
18. Please describe clean water availability in the area:
19. Please describe the child sanitary practices and parents' awareness about sanitation:

Nutrition data

20. What are the main food items that consume in your area?
21. Is there any food deficit in the area?
22. What are the nutritious foods that available but not consume by people in the area?
23. According to your point of view, what are the social, cultural, economic and health factors that cause child malnutrition (stunting and wasting) in the area? Please describe
24. Is there any malnutrition combating interventions going in the area? (Yes/ No)
25. If yes, what are the implemented activities to increase nutrition status of children?

- Wash baby/ bath once a day
 - Properly wash baby after go to toilet
 - Brush teeth twice a day
13. How long you are breast feeding/ breast fed baby?
 14. How many fruits that you give your child per day?
 15. Do you know how to read the Child Growth Chart (KMS)? Yes/ No
 16. Do you bring your child to Posyandu in every month? Yes/ No
 17. What are the major diseases that child get frequently?
 18. Is your child play outside every day? Yes/ No
 19. How many hours that child plays a day?
 20. Special notes:
 21. Dietary recall for mothers

Objective: To understand child feeding practice of mothers.

Date	Time	Food item	Portion

Annex 04:

Questionnaire for Paud teachers

Objective: To understand the possibilities of implementing child nutrition activities at Pauds

1. When the paud is held usually?
2. How many hours it usually held?
3. How many children are there? Boys Girls
4. What is the age of children in the Paud?
5. List out the daily activities that going on a Paud?
6. What are the special activities that held in a Paud? (May be annually or monthly)
7. Are there any underweight children in the Paud? If “Yes” please give the number
8. Are there any stunted children in the Paud? If “Yes” please give the number
9. Are there any wasting children in the Paud? If “Yes” please give the number
10. What are the foods that children bring for their meals?
11. Do children eat their breakfast before come Paud? (Yes/ No)
12. What are the child nutrition activities going in a Paud?
13. Are there any parents meetings or gatherings monthly or annually?
14. How’s the parents’ involvement for Paud activities towards children?
15. Special notes

Annex 05:

Questionnaire for school age adolescents

Objective: To understand the healthy behavior and practices of adolescents as they are future parents

1. Age:
2. Height: Weight: BMI:
3. Do you have your breakfast before come to school? (Yes/ No)
4. Please fill the table:

Meal	Time	What you eat
Breakfast		
Lunch		
Dinner		
Extra meals		

5. How many fruits that you eat per day?
6. What are the regular physical activities that you engaged with? (Games/ exercises)
7. How many hours are you engage with physical activities per day?
8. Please tick off the habits that you are practicing
 - Wash hands with soap after go to toilet
 - Wash hands with soap before meals
 - Wash body or bath every day
9. What are the nutrition activities going on the school?
10. Do you know the importance of nutrition to health? (Yes/ No). Please list them down

Annex 06:

Interview guideline for administrative officials in Parigi Mountong- Child malnutrition issue

1. Population of the district (Adult and children age under 5)
2. General nutrition condition of the area
3. Describe the income generation methods (jobs) and poverty level of the area
4. Impact of project READ for poverty and health status of the district

Interview guideline for health officials in Parigi Mountong- Child malnutrition issue

1. Describe the general nutrition conditions of the area
2. Describe the status of child malnutrition in the area
3. What are the identified reasons for child malnutrition?
4. What are the actions that have been taken to reduce malnutrition issue?
5. Describe the grass root level health officials available and their role for child health.
6. Is it possible to give health officials' contribution to implement the READSI nutrition action plan?

Annex 07



Annex 08:

Action plan of Nutrition and early childhood nutrition for Agricultural Development: Rural Empowerment and Agriculture Development Scaling-up Initiative (READ SI) project

Objective:

To reduce under 5 year children chronic malnutrition by 10% in selected project districts within 3 years by addressing underline determinants via behavior changes.

Target group:

- Children age under 5
- Village farming families
- High school adolescents

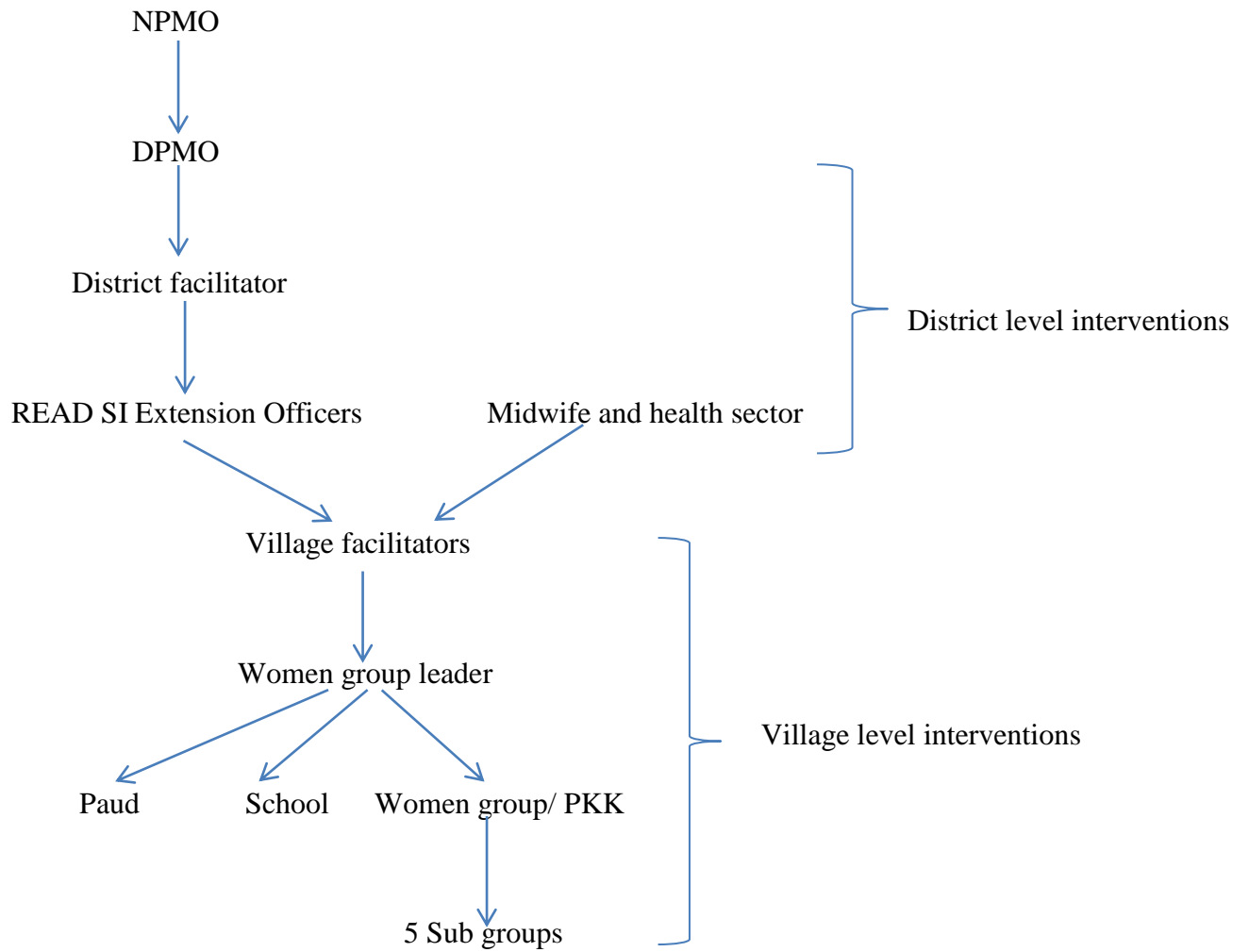
Implementers:

- District Project Management Office (DPMO)
- District facilitators
- READ SI Extension Officers
- Midwives
- Paud teachers
- Village facilitators
- Women group leaders
- Women groups formed by project READ SI/ PKK

Determinants diagram of under nutrition issue in READ SI areas addressed by the action plan



Action plan implementation process



Village level activities

Determinant: Food insecurity									
Rural poor people are vulnerable to shocks and they are unable to bare such sudden life changes. Not only economic shocks, but severe droughts, floods and earthquakes etc. natural disasters disturb their lives. These people should have measures to face the shocks and access food without scarcity.									
DPMO responsibility: Provide guidance and coordinate Extension Officers for promote homestead gardens.									
Activity	Activity description	Activity frequency	Target group	Target count	Target villages per district	Implementers	Resources required	Desired outcomes	Indicators to measure
Promote homestead gardens	<ul style="list-style-type: none"> • Encourage groups to maintain homestead gardens. • Sub group together facilitates for individual's home gardens of the group. 	Continuous activity	Women groups	25	20	<ul style="list-style-type: none"> • READ SI Extension Officer • Village facilitator • Women group leader 	<ul style="list-style-type: none"> • Knowledge • Equipment • Water sources • Fertilizer 	<ul style="list-style-type: none"> • To promote food availability. • To promote fresh food consumption. 	<ul style="list-style-type: none"> • No. of home gardens started within a village. • Success stories
Paud child gardens	<ul style="list-style-type: none"> • Maintain a garden at Paud. • Free land or pots can use for gardening. • Maintain at least one crop by one child. • The products could be used for Paud lunch activity.¹ 	Continuous activity	Paud children	1 per village	20	<ul style="list-style-type: none"> • Paud teachers • Women group leader • Paud parents 	<ul style="list-style-type: none"> • Knowledge • Equipment • Water access • Fertilizer • Pots/ free land 	To develop self-sustaining attitude among preschoolers.	<ul style="list-style-type: none"> • Success stories

¹ Indonesian government already provides funds for providing lunch per month for every Paud.

Determinant: Less food diversity									
Even though verities of foods available, people limited to few food verities. Therefore food diversification is needed to promote.									
DPMO responsibility: Coordinate the programs with health sector and monitor the process at villages. Provide technical and financial support agricultural and nutrition activities.									
Activity	Activity description	Activity frequency	Target group	Target count	Target villages per district	Implementers	Resources required	Desired outcomes	Indicators to measure
Awareness programmes on nutrition, child malnutrition and food diversification.	<ul style="list-style-type: none"> • Discussion with communities about food and nutrition, their functions, sources, PPH², food pyramid and the importance of food diversification. • Importance of Early Childhood period and nutrition requirement of golden 1000 days. • Child malnutrition, determinants, impacts and how to overcome issue. <ul style="list-style-type: none"> • Advocate mothers how to how to read KMS³ and to identify malnutrition conditions. 	One programme	Women groups	25	20	<ul style="list-style-type: none"> • Midwife • Village facilitator • Women group leader 	<ul style="list-style-type: none"> • Supporting ppt⁴ • Posters/ pictures 	<ul style="list-style-type: none"> • To raising awareness on food diversification. • To raising awareness on child malnutrition and its impact. • To encourage mothers for nutrition interventions. 	<ul style="list-style-type: none"> • Participatio n for discussions. • Pre- post knowledge evaluation. (Annex 01)
Demonstrated food preparation campaigns	<ul style="list-style-type: none"> • Practically educate others how to prepare nutrient foods by locally available foods. 	One programme	Women groups	25	20	<ul style="list-style-type: none"> • Midwife • Women group leader 	<ul style="list-style-type: none"> • Technical knowledge • Cooking equipment 	<ul style="list-style-type: none"> • To promote nutritious food for children. • Make it easy 	<ul style="list-style-type: none"> • No. of participants • Feedback from participants

² PPH (*Pola Pangan Harapan*)- Expected food patterns

³ KMS (*Kartu Mensu Sehat*)- Child health development record

⁴ Power point presentations

	<ul style="list-style-type: none"> Mothers can practice them in their houses and future child nutrition activities. Introduce new serving ideas that make children like to eat. (Annex: 02) 							to feed babies	
Collective feeding activities for children	<ul style="list-style-type: none"> Sub women groups prepare a diversified meal together once/ twice a week from locally available fruits and vegetables. Lunch, dinner or additional meal could prepare as time availability of mothers. Collect children to a common place and feed them all together. To increase food appetite colorful plates or containers can use. 	Weekly	Children under age 5 in the village	25	20	<ul style="list-style-type: none"> Women group leader Women group Village facilitators 	Cooking equipment	<ul style="list-style-type: none"> To promote diversified foods among children. To encourage children feed by themselves. 	<ul style="list-style-type: none"> No. of collective feeding activities held per month Child weight gain
Paud fruit day	<ul style="list-style-type: none"> Encourage parents to send a fruit with children lunch in a selected day. 	Once/ twice a week	Paud children	1 per village	20	<ul style="list-style-type: none"> Paud teacher Paud parents 	Locally available fruits	To encourage fruit intake of children	No. of fruit days conducted per month
Traditional food market	<ul style="list-style-type: none"> Establish a traditional food market per village. Women groups or any volunteers from the village are responsible in maintaining the market and food supply. 	Once a month	Women groups	25	20	<ul style="list-style-type: none"> DPMO READ SI Extension Officer Local government officials Village head 	Funds Technical knowledge	<ul style="list-style-type: none"> To increase the availability of traditional foods. To promote food diversification. To increase availability of healthy products. 	<ul style="list-style-type: none"> Success stories No. of beneficiaries

	<ul style="list-style-type: none"> Days of held market decide by community itself. 								
Dairy products promotion ⁵		Continuous activity	Women groups	25	20	<ul style="list-style-type: none"> DPMO READ SI Extension Officer Local government officials Village head 	<ul style="list-style-type: none"> Technical guidance Land Funds 	To promote availability of dairy products in affordable cost.	<ul style="list-style-type: none"> Success stories No. of beneficiaries

⁵ The activity has to be further developed with NMPO, DPMO and district agriculture office at least as a pilot study. Have to look for feasibility, technical knowledge and resource allocation for implement the activity.

Determinant: Poor hygiene and sanitation practices

Poor hygiene identified as a major determinant for child under nutrition in Indonesia.

DPMO responsibility: Make collaborate with health sector and monitor the process.

Activity	Activity description	Activity frequency	Target group	Target count	Target villages per district	Implementers	Resources required	Desired outcomes	Indicators to measure
Advocacy programs for community on proper hygiene practices.	<ul style="list-style-type: none"> Discuss may include effects of bad hygiene practices and importance of good hygiene for child wellbeing. Conduct demonstration sessions of personal hygiene practices; hand washing and tooth brushing. 	One programme	Women groups	25	20	<ul style="list-style-type: none"> Midwife Village facilitator Women group leader 	<ul style="list-style-type: none"> Videos Posters Pamphlets 	To raise general awareness on personal hygiene practices.	<ul style="list-style-type: none"> Participation for discussions. No. of households practice demonstration.
Develop creative hygiene tools	<ul style="list-style-type: none"> Develop creative games, songs and puppets etc. incorporate their cultural beliefs to promote hygienic behavior. Practice developed tools with children as sub groups. 	One programme	Women groups	25	20	<ul style="list-style-type: none"> Midwife Women group leader 	<ul style="list-style-type: none"> Writing and drawing equipment 	<ul style="list-style-type: none"> To educate children importance of hygiene. To promote hygiene practices among children. 	<ul style="list-style-type: none"> No. of tools developed. No. of sub groups practice tools.
Promote healthy and clean kitchens	<ul style="list-style-type: none"> Facilitate to identify features of healthy kitchen and develop their own criteria. (Annex: 03) Make it to practice. 	Continuous activity	Women groups	25	20	<ul style="list-style-type: none"> Midwife Women group leader 		To promote clean food, clean kitchen concept.	<ul style="list-style-type: none"> No. of healthy kitchens in the village.
Promote child hygiene till boxes	<ul style="list-style-type: none"> Develop a hygiene practices criteria for children with women groups. (Annex: 04) 	Continuous activity	Women groups	25	20	<ul style="list-style-type: none"> Village facilitator Women group leader 	Demonstration till box	To encourage hygiene practices of children and money saving behavior.	<ul style="list-style-type: none"> Amount saves per month. No. of till boxes maintain at village.

	<ul style="list-style-type: none"> • Paste it in a till box. • Put a coin to the box if all criterions completed within the day. • Collected money can use for child wellbeing activities. 								
Healthy toilet practices	<ul style="list-style-type: none"> • Disseminate healthy toilet practices messages at their monthly gathering. • Separate soap/ use soap for toilet. • Separate slippers/ use slippers for toilet. • Keep the toilet clean every day. 	Continuous activity	Women groups	25	20	<ul style="list-style-type: none"> • Village facilitator • Women group leader 		<ul style="list-style-type: none"> • To reduce diarrhea and other communicable diseases among the community. • To reduce malnutrition issues of children 	No. of families that practice healthy toilet practices.
Hand washing activity at Pauds	<ul style="list-style-type: none"> • Demonstrate children how to wash hands correctly. • Keep soap and let the practice. • Before every eal, after use toilet and after play outside proote hand washing in Pauds. 	Continuous activity	Paud children	1 per village	20	<ul style="list-style-type: none"> • Paud teacher • Women group leader 	<ul style="list-style-type: none"> • Videos • Posters 	<ul style="list-style-type: none"> • To promote correct hand washing technique among children and reduce frequency of getting ill. 	No. of children know correct hand washing technique.

Determinant: Poor water quality and less water consumption

Water is important factor for life and poor water quality makes children sick and reduce their weight

DPMO responsibility: Identify villages that need water projects. Plan, implement and supervise selected project.

Activity	Activity description	Activity frequency	Target group	Target count	Target villages per districts	Implementers	Resources required	Desired outcomes	Indicators to measure
Village water projects	<ul style="list-style-type: none"> This activity is only for villages that don't have access to quality water. Community itself could contribute by labour. 	One project	Villagers	Population of village	Villages which has a felt need of water project	<ul style="list-style-type: none"> DPMO READ SI Extension Officer Village head Village facilitator 	<ul style="list-style-type: none"> Technical knowledge Funds Construction materials Labour 	To ensure quality water access to all in village.	<ul style="list-style-type: none"> Success stories No. of beneficiaries
Improve clean water access	<ul style="list-style-type: none"> Advocate people and practice consume boiled water or filtered water or at least filter through a clean cloth for drinking purposes. The cloth should remove when it get dirt. (Annex: 05) 	Continuous activity	Women groups	25	20	<ul style="list-style-type: none"> Midwife Women group leader 		To promote drinking clean and quality water.	No. of households drinking clean water.
Child water bottle	<ul style="list-style-type: none"> The bottle marks units which indicate the level of water consumed or slogans or pictures to encourage drink water. (Annex: 06) 	Continuous activity	Women groups	25	20	<ul style="list-style-type: none"> Midwife Women group leader 	Demonstration water container	To promote drinking water behavior.	No. of mothers maintain a water bottle.

Determinant: Iodized salt consumption

Iodine stimulates thyroid hormone secretion. Early life iodine deficiency disturbs neurodevelopment and increase risk of birth weight reduction and increase child mortality.

DPMO responsibility: Advocate vendors and promote selling iodized salt in the district.

Activity	Activity description	Activity frequency	Target group	Target count	Target villages per district	Implementers	Resources required	Desired outcomes	Indicators to measure
Awareness programmes iodized salt consumption	<ul style="list-style-type: none"> • Importance of salt and iodine. • Educate minimum requirement of iodine per day. • Impact on inadequate iodine consumption for children and adults. • Educate and demonstrate label reading when buy salt. 	One programme	Women groups	25	20	<ul style="list-style-type: none"> • Midwife • Women group leader 	<ul style="list-style-type: none"> • Supporting ppt • Brand hidden salt packets which contain different iodine amounts 	Improving healthy buying	<ul style="list-style-type: none"> • No. of houses practice the knowledge
Iodized salt safety storage activities	<ul style="list-style-type: none"> • Disseminate health messages for iodine consumption during monthly gathering. • Educate not exposure salt to sunlight or heat. • Educate not to keep salt bottle near the hearth or cooker. • Promote salt storage in dark bottles. 	Continuous activity	Women groups	25	20	<ul style="list-style-type: none"> • Midwife • Women group leader 	<ul style="list-style-type: none"> • Pictures • Posters • Demonstration bottle 	To practice healthy salt storage	No. of households practice iodized salt safety storage

Determinant: Poor nutrition knowledge

Poor access to facilities, services and information rural people are low in health literacy as compared to urban communities.

DPMO responsibility: Facilitate programmes by collaborate with health sector. Arrange sessions for all villages.

Activity	Activity description	Activity frequency	Target group	Target count	Target villages per districts	Implementers	Resources required	Desired outcomes	Indicators to measure
Adolescent nutrition awareness programme	<ul style="list-style-type: none"> Discuss about basic nutrition awareness, nutrition requirement at adolescent age, importance of adolescent nutrition and how to improve nutrition 	One programme	High school students	Depends on available count	20	<ul style="list-style-type: none"> Health sector (Doctor/ Midwife) Village facilitator Women group leader 	<ul style="list-style-type: none"> Supporting ppt 	To raise nutrition awareness among adolescents.	<ul style="list-style-type: none"> Participation to the programme
Newly wedded couples awareness programme	<ul style="list-style-type: none"> Discuss the nutrition requirement before pregnancy. Importance of women nutrition before pregnancy 	One programme	Newly wedded couples; both husband and wife.	Depends on available count	20	<ul style="list-style-type: none"> Health sector (Doctor/ Midwife) Village facilitator Women group leader 	<ul style="list-style-type: none"> Supporting ppt 	To raise nutrition awareness among newly wedded couples.	<ul style="list-style-type: none"> No. of couples participated.

Special activities

Following activities are not for malnutrition reduction; but important for implement and continue the process.

DPMO responsibility: Facilitate the programmes by monitoring the activities.

Activity	Activity description	Activity frequency	Target group	Activity Target count	Target villages per district	Implementers	Resources required	Desired outcomes
Village progress book	<ul style="list-style-type: none"> Maintain a booklet for village health interventions. Indicate no. of underweight and sick children. Record what are the activities did in a month and results of measuring indicators mentioned in the action plan. 	Continuous activity; update monthly	Women groups	1per village	20	Women group leader	<ul style="list-style-type: none"> Indicator record book 	<ul style="list-style-type: none"> To keep and maintain records of baseline and progress. To identify children risk to malnutrition in village. To identify specific interventions need address malnutrition. To identify reduction of malnutrition of village.
Target setting activity	<ul style="list-style-type: none"> Women group discuss the prevalence of malnutrition of village. Discuss the objective of READ SI nutrition component and action plan. Set village specific targets, vision, mission and motto for READ SI nutrition component. Divide group in to 5 sub-groups. 	One programme	Women groups	25	20	<ul style="list-style-type: none"> Midwife Village facilitator Women group leader 	Writing equipment	<ul style="list-style-type: none"> To socialize the plan for women groups. To ensure importance of addressing malnutrition. To make them self-encourage for intervention.
Healthy house competition	<ul style="list-style-type: none"> Houses will be measured according to criteria. Select best performed 5 houses of the village and rewarded. (Annex 07) 	Annually	Women groups	25	20	<ul style="list-style-type: none"> Midwife Village facilitator Women group leader 	<ul style="list-style-type: none"> District specific criteria to measure houses. 	To maintain a healthy competition between families

Training, capacity building and special programmes required at regional level

Training/ programme	Frequency/ Time frame	Trainers/ Responsibility	Trainees/ participants/ beneficiaries	Content of activity
Sector collaboration programme	One programme	DPMO	<ul style="list-style-type: none"> • Local health authorities • Local government • Local education authorities 	<ul style="list-style-type: none"> • Socialization program with different sectors. • Introduction of nutrition component and action plan. • Discuss the practical barriers, approaching strategies and do necessary amendments.
Basic nutrition ToT	One programme	DPMO Health sector READ SI Extension Officers	<ul style="list-style-type: none"> • Village facilitators • Women group leaders • Paud teachers 	<ul style="list-style-type: none"> • Basic nutrition concepts and importance of nutrition. • Child nutrition deficiencies and their impact on children. • READ SI nutrition activity plan. • Monitoring and evaluation mechanism of intervention. • Provide the scientific knowledge on all determinants going to be addressed during the first year.
Refresher ToT	Annually	DPMO READ SI Extension Officers	<ul style="list-style-type: none"> • Village facilitators • Women groups • Paud teachers 	<ul style="list-style-type: none"> • Following year programme plan • Knowledge raising and strategies discussion to address determinants of upcoming year. • New updates on child nutrition. • Issues and progress of interventions.
M & E activity- District progress book	Update bi annually	DPMO READ SI Extension Officers	NPMO	<ul style="list-style-type: none"> • Collect data from READ SI villages by the village progress book and maintain the progress of health interventions in each village.
M & E activity- District review meeting	Annually	DPMO READ SI Extension Officers	<ul style="list-style-type: none"> • Women groups • Paud teachers • Volunteers form benefitted communities • Village facilitators 	<ul style="list-style-type: none"> • Present the progress of village nutrition and READ SI activities. • Make suggestions for increase quality of interventions. • According to a criteria, select best performed village of the district. (Annex: 08)

Social marketing activities

- Village traditional food market
- Village water project
- Animal products promotion

Villagers themselves could choose one of an activity per year by the budget allocated for social marketing component.

Monitoring and evaluation method

Every measurement has to take at the end of the month.

Grass root level evaluation

- Village level activities evaluate using indicators mentioned in the action plan, in every month.
- All data should record in a village record book which is the responsibility of village facilitator and women group leader.
- Other than above indicators following data should be recorded as baseline before intervention implement and update in every month during all project years.

Factor	Year:											
	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
No. of under nourished children												
No. of diarrheal and sick children												
No. of activities conducted												

Regional level evaluation

- Measure the baseline in July using below criteria and then continue measuring every six months.

Factor	Sample size	2019		2020		2021	
		Jul	Dec	Jul	Dec	Jul	Dec
% of under nourished children	25× 20						
No. of diarrheal and sick children							
No. of activities conducted							
No. of homestead gardens in the district promoted by READ SI							

Time frame

Activity	2019												2020												2021												
	Month												Month												Month												
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
Sector collaboration programme	■	■	■	■																																	
Basic nutrition ToT				■	■	■	■																														
Indicator recorder (Village level)								■	■																												
Indicator recorder (District level)								■	■																												
Target setting activity								■																													
Promote homestead gardens										■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
Promote child gardens at Pauds															■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Awareness programmes on nutrition, child malnutrition and food diversification.										■																											
Demonstrated food preparation campaigns											■																										
Collective feeding activities for children													■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Iodized salt consumption advocacy programmes																■																					
Iodized salt safety storage activities																■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Paud fruit day																■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Advocacy programs for community on proper hygiene practices.																	■																				
Hand washing activity at Pauds																	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Promote healthy and clean kitchens																		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Promote child hygiene till boxes																																					
Healthy toilet practices																							■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Village water project																		■																			
Improve clean water access																									■	■	■	■	■	■	■	■	■	■	■	■	
Child water bottle																											■	■	■	■	■	■	■	■	■	■	■
Adolescent nutrition awareness programme																							■	■											■	■	
Newly wedded couples awareness programme																																				■	

Annexes for action plan

Annex: 01- Pre- post knowledge evaluation criteria

Factor	Answer (Descriptive)	
	Pre	Post
What are the important nutrients		
What are the food sources of each nutrient listed above		
What are the functions of each nutrient listed above		
Please draw a simple food pyramid		
How much water a person should drink per day		
What are the consequences of child malnutrition		

Annex: 02- Creative serving methods, sample image



Source: www.pinterest.com

Annex: 03- Guideline for healthy and clean kitchen

1. Keep close foods after preparation
2. Keep close grinders and other equipment after using
3. Sweep the kitchen after food preparation
4. Keep knives and sharpen tools where children can't reach
5. Don't keep pesticides and chemicals inside the kitchen
6. Maintain proper ventilation in the kitchen
7. Keep the kitchen always tidy

Annex: 04- Guideline criteria for hygiene till box

1. Body wash/ bath child daily
2. Wash child's hands before every meal
3. Wash child's hands with soap after using toilet
4. Wash child well after go toilet
5. Dress clean clothes every day
6. Brush teeth twice a day morning and night

Annex: 05- Sample pictures of filter water using a clean cloth



Annex: 07- Sample water bottle



Annex: 07- Guideline for healthy house criteria

Give “1” for success and count total. 5 Houses obtain highest marks will be rewarded.

1. House is clean and tidy
2. Toilet is clean
3. No issue of child malnutrition
4. Engage with community collective works
5. Implemented 75% of targeted activities
6. Knows how to wash hands in proper technique
7. Have a homestead garden

Annex: 08- Guideline for healthy village competition criteria

Criterion (per village)	Sample size	%
Total activities conducted	25	
Reduction of malnutrition compared with baseline	25	
Reduction of diarrheal and sick children compared with baseline	25	
Homestead gardens available	25	
Households which direct benefitted from READ SI nutrition plan	Village house holds	
Average		

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