

Progress of the Project

Period: April 2016 – February 2021

Overall goal: Domestic rice production is increased.

Project purpose:

The rice cultivation practice based on the Extension Guideline developed in Phase 1 is disseminated in 35 MMDAs of Ashanti and Northern Regions.

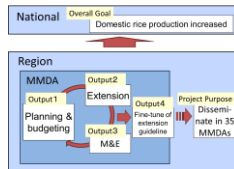
Project Frame

Output 1: Planning & Budgeting

Output 2: Extension

Output 3: M&E

Output 4: Fine-tuning Guideline



	Indicator	Target	Progress	
			Ashanti	Northern
Output 1	Rice Extension Plan	35 MMDAs developed	20 MMDAs developed	15 MMDAs developed
	Budget	35 MMDAs developed	17 MMDAs developed	15 MMDAs developed
Output 2	No. of Training conducted	5 times / MMDA (519)	128	132
	No. of DAO and AEA trained	315	124	110
	No. of Farmer trained	3,520	2,437 M: 1,547 F: 809	2,558 M: 1711 F: 858
Output 3	M&E System established	M&E Tool is developed	M&E tool is developed.	
	No. of Training conducted	8	3 (during TOTs)	3 (during TOTs)
Output 4	Application rate (%)	5% increase (73% after three years)	26%	37%
	Male		19.1% (77/402)	27.0% (192/710)
	Female		7.2% (29/402)	10.4% (74/710)
Purpose	Demo Plot Yield (ton/ha)	100% increase	4.81	3.78
	Farmer Yield (ton/ha)		2.9	2.4

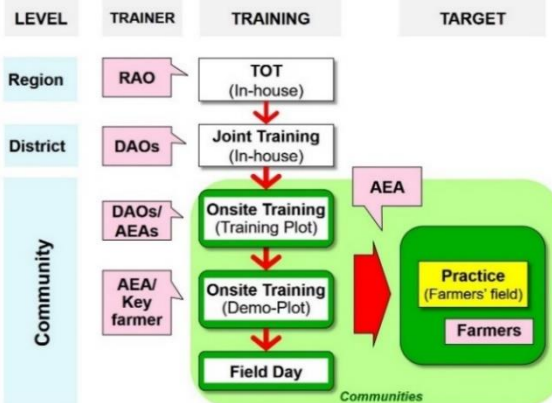
MMDAs are supported directly only for 1 year. But They continues rice extension trained.

WHY? TURN OVER for detail.

Rice Extension Guidelines

The Guideline consists of three part, namely: Rice cultivation technics, extension and marketing.

A CASCADE MODEL is applied for extension.



ENABLING MMDAs TO MANAGE RICE EXTENSION:

The Guideline also describes how officers in MMDAs plan and manage their rice extension plan to disseminate technologies under decentralized system.

VENUE	STEP	OBJECTIVES/ CONTENTS
District	STEP 1. District Rice Extension Plan	To prepare District Rice Extension Plan & budget.
Community	STEP 2. Community Facilitation	To introduce activities to community. To organize farmers group.
Community	STEP 3. Site Visit	To select target sites.
Region/ District	STEP 4. Training of Trainers (TOT)	STEP 4.1 TOT at Region: To train DDA/ DAOs. STEP 4.2 TOT at District (Joint Training): To train DAOs/ AEAs.
Community	STEP 5. Baseline Survey	To conduct Baseline Survey.
Community	STEP 6. Onsite Training	To train AEAs/ Key Farmers (Training Plot). To train Target Farmers (Demo Plot).
Community	STEP 7. Sharing Results	STEP 7.1: Field Trip: To share the experiences. STEP 7.2: Field Day: To demonstrate the results.
District	STEP 8. Monitoring & Evaluation	To monitor & evaluate District Rice Extension Plan.



Issued on July 2019
Japan International Cooperation Agency

Project for Sustainable Development of Rain-fed Lowland Rice Production Phase II



Rice has become one of the most important staple crops in Ghana. Domestic consumption is increased, while domestic production is limited, thus the balance is imported. Most of rice production is in the rain-fed low land areas with low productivity where the majority of rice farmers are smallholders with limited access to technical information. Increasing the yield is one of the big challenges. Government of Ghana is trying to increase rice production.

Ministry of Food and Agriculture (MoFA) and Japan International Cooperation Agency (JICA) have implemented the Project for the Sustainable Development of Rain-Fed Lowland Rice Production Phase 2 (Tensui 2) from April 2016 to tackle with the challenge above.



MINISTRY OF FOOD AND AGRICULTURE
REPUBLIC OF GHANA



8 SIMPLE TECHNICS FOR **HIGHER YIELD** OF RAIN-FED LOWLAND RICE PRODUCTION

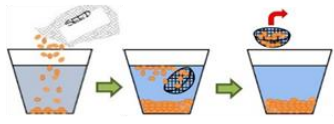
SIMPLE FOR FARMERS TO PRODUCE MORE

1 HARVEST WATER AND DISTRIBUTE IT EVENLY



2 SMALLER QUANTITY SEED, HIGH GERMINATION RATE

16-24 kg/ acre after salt water seed selection



3 FREE FROM DISEASE & HEALTHY SEEDLINGS

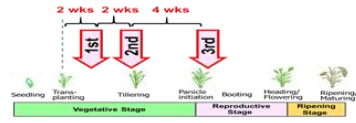
Put seed into 60°C water for 10 minutes



4 OPTIMIZE PLANT POPULATION & IMPROVE YIELD



5 PROVIDE NUTRIENTS TO PLANTS AT RIGHT QUANTITY & TIME

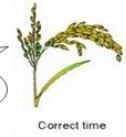


6 MAXIMIZE BENEFIT OF FERTILIZER



7 REDUCE HARVEST LOSS & IMPROVE IN MILLING QUALITY

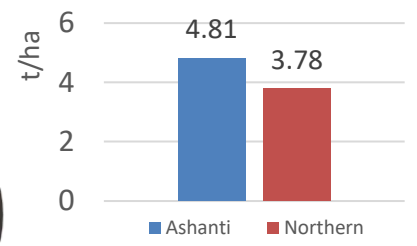
Moisture content at 25-20%



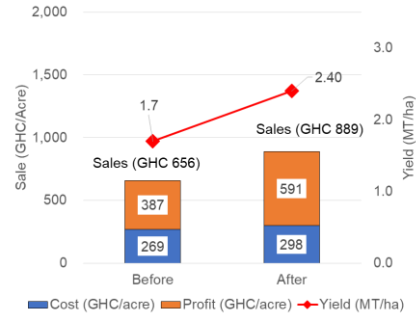
8 GET BEST QUALITY STONE FREE GRAINS



Yield (demo plot in 2018)



SIMPLE FOR FARMERS TO EARN MORE



ALL 24 MMDAS CONTINUE EXTENSION AFTER SUPPORT

Cycle	ASHANTI REGION			NORTHERN REGION		
	Name of MMDAs	No. of Plots		Name of MMDAs	No. of Plots	
1 (Total 26)	ADANSI SOUTH	11	1 (Total 10)	TAMALE METRO	2	
	ADANSI NORTH	3		MION	1	
	AHAFO AND NORTH	3		EAST GONIA	4	
	ASANTE AKIM NORTH	1		SAGNERIGU	1	
	ATWIMA MPONUA	11		WEST MAMPURSI	2	
	ASANTE AKIM SOUTH	7		CHEREPONI	4	
2 (Total 27)	AFIGA KWABRE	3	2 (Total 10)	GUSHEGU	4	
	AMANSIE WEST	4		YENDI	2	
	EJURA SEKYEDUMASE	4		SAVELUGU	3	
	OFFINSO NORTH	8		KUMBUNGU	3	
	SEKYERE CENTRAL	1		EAST MAMPURSI	4	
	AMANSIE CENTRAL	2		KARAGA	4	
3 (Total 18)	MAMPONG	5	3 (Total 15)	TOOLON	4	
	SEKYERE AFRAM PLAINS	1		CENTRAL GONIA	3	
	SEKYERE EAST	3		ZABZUGU	2	
	SEKYERE KUMAWU	1				
	SEKYERE SOUTH	6				
	Grand Total	71				45

116 demonstration plots are established & operated in 2019 season.



The Project for Sustainable Development of Rain-fed Lowland Rice Production Phase II





Project for Sustainable Development of Rain-fed Lowland Rice Production in Ghana Phase 2 - Ghana Tensui Rice 2 - September 2019 (ver. 0.11)

Produce rice and earn more with simple & appropriate technologies!

Project: Rice has become one of the most important staple crops in Ghana. Domestic consumption has been increased, while domestic production is limited, thus the balance is imported. Most of rice production is in the rain-fed low land areas with low productivity where the majority of rice farmers are smallholders with limited access to technical information. Increasing the yield is one of the big challenges. Government of Ghana tries to increase domestic rice production.

The Project for the Sustainable Development of Rain-Fed Lowland Rice Production Phase 2 (Tensui 2) addresses the challenge above. Project aims at disseminating the **Rice Extension Guideline** to 35 districts in Ashanti and Northern regions, contributing to the increase of domestic rice production. The Project provides the districts with technical support pertaining to improved rice cultivation techniques, while districts prepare the District Rice Extension Plan and its budget.



Progress: The project (Tensui Rice 2) focuses on disseminating the improved technical packages as well as developing its managerial capacities of Metropolitan, Municipal and District Assemblies (MMDAs) in the midst of the ongoing process of decentralization.

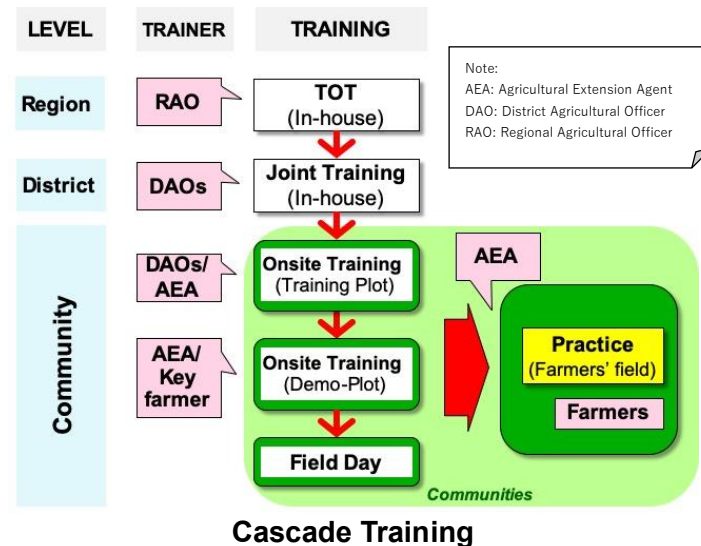
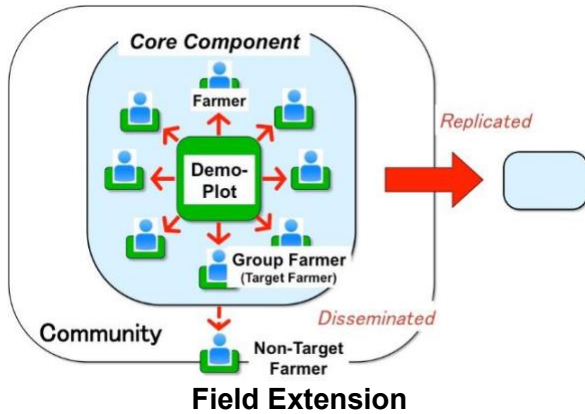
As of December 2018, 35 MMDAs developed rice extension plans; 57 district agricultural officers, 234 agricultural extension agents and 4,955 farmers were trained. In 2018, average yields of the demonstration plots were 4.81 ton/ha for Ashanti, 3.78 ton/ha for Northern region, and 4.02 ton/ha on average. Yields of beneficiary farmers also improved **from 2.3 ton/ha to 3.2 ton/ha** in Ashanti, **from 1.7 ton/ha to 2.4 ton/ha** in Northern region with an average of 2.8 ton/ha for both regions. They also enjoy **increased profit by 73%** on average.



Project Name	Project for Sustainable Development of Rain-fed Lowland Rice Production in Ghana Phase 2
Implementing Agency	Ministry of Food and Agriculture (MoFA) in cooperation with Japan International Cooperation Agency (JICA)
Project Period	April 2016 – February 2021
Project Area	Ashanti and Northern regions *Northern region was divided into three regions in June 2019: Northern, North East and Savannah regions.
Project Purpose	Disseminating Rice Extension Guideline in 35 districts in both regions.
Outputs	1. Planning & budgeting capacities of districts 2. Extension capacities 3. M&E capacities 4. Fine-tuning Guideline


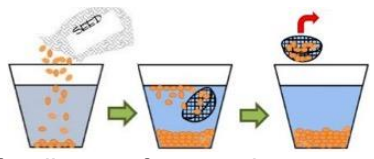

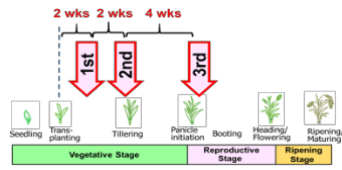



PHASE I (2009-2014): The Project Phase I developed the **Rice Extension Guideline** which provides the improved technical package and extension methodology for rain-fed lowland rice cultivation. Beneficiary farmers enjoyed the increase of the yield from 1.79 (ton/ha) to 4.70 (ton/ha) in Ashanti and 1.15 (ton/ha) to 2.69 (ton/ha) in Northern region. In addition, there are several success stories among target farmers; in Ashanti region one farmer established rice milling center and another farmer purchased a power tiller. In Northern region, one group purchased a tractor.

Extension: Demonstration plots (Demo-Plots) are set up for practical training of group of farmers (Group Farmer) at the field in communities. A series of cascade trainings from Region to the field level are conducted for efficient and effective dissemination to widely spread area. Beneficiaries of those training in turn become trainers in the next stage of cascade training.



Cascade Training


Technical Package: Eight simple techniques for higher yield.

- Bund construction for water control and land levelling for uniform water distribution.** 
- Saltwater seed selection for healthy and viable seeds.**  16-24 kg/ acre after saltwater seed selection
- Hot water treatment for disease-free seeds.**  Regulate fire to maintain 60°C for 10 minutes
- Line planting for easy farm operation and optimize plant population for higher yield.**
- On time three-split fertilizer application with optimal amounts.**  2 wks 2 wks 4 wks
1st 2nd 3rd
Seeding Trans-planting Tillering Panicle initiation Booting Heading/Flowering Ripening/Maturing
Vegetative Stage Reproductive Stage
- Two-time weeding for higher yield: with push weeder.** 
- On time harvesting for higher yield and reducing grain & quality losses.**  Moisture content at 20-25%.
Correct time
- Threshing on tarpaulin & winnowing for stone free rice; drying up to optimal moisture content.** 

SUCCESS STORIES (ASHANTI REGION)

Mr. Abdul Rahman Iddrisu, a successful rice farmer in Tepa. Previously, he had an acre rice field and produce only 7 bags of paddy rice. In 2010, he joined farmers' group for the training. The improved rice cultivation techniques trainings he had made it possible for him to grow more rice. He currently cultivates 8 acres of lands for rice and **produces 300 bags** (37 bags/acre; 84kg per bag) of paddy rice in both major and minor cropping seasons. He is a 3-time winner of the district best rice farmer award. The latest being winner of 2018 district best rice farmer award. Now he serves as a resource person for dissemination of TENSUI 2 technology to farmers in Ahafo Ano North and other Districts.

Technologies I obtained make me keep growing rice every year.



SUCCESS STORIES (NORTHERN REGION)

Purchasing agricultural machines: Osman Salifu of Sanga, Sagnerigu


In 2009, I joined farmers' group as a key farmer for the training. The trainings on improved rice cultivation techniques I had made it possible for me to grow more rice. Now, I can harvest **over 25 bags** (84kg per bag) from an acre every year; for example, 31 bags in 2018, 26 bags in 2017, and 33 bags in 2016.

I don't have to cultivate rice in large size of acreage anymore, since I can produce it more than enough.

Finally, I was able to purchase a small **tractor** together with its attachment of **ripper**.

This is more than 5 ton/ha.

I utilized my profit for investing in the future!

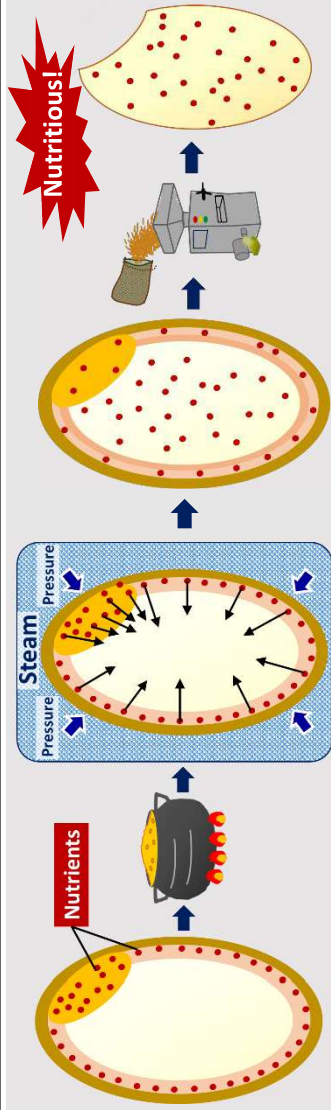




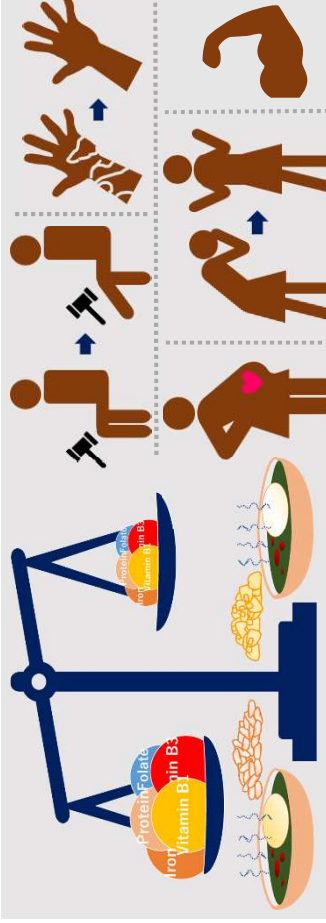
EAT HEALTHY!
EAT TASTY!
EAT PARBOILED RICE!



LET'S SEE WHY!



Germ and bran contain nutrients such as vitamin Bs and minerals. During parboiling, paddies are steamed inside a parboiling pot and nutrient components move from the germ/bran to white rice by the water pressure. Consequently, even after milling, white rice contain nutrient components originally from the germ/ bran!



Parboiled rice flour porridge and TZ contain vitamin B1, vitamin B3, folate, iron or protein sufficiently, even compared to maize flour porridge and TZ! These nutrients can contribute to prevent beriberi, pellagra, fatal growth restriction or anemia and to improve muscle strength!

LET'S SEE HOW!

Recipes to serve 4 adults or 6 children

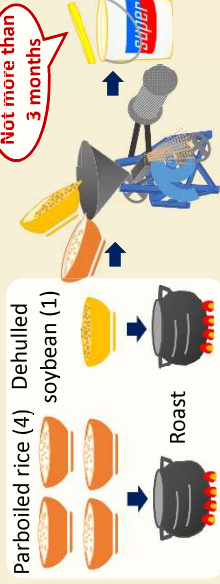


RICE-SOYA WEANIMIX PORRIDGE

1. Ingredients



2. Let's prepare rice-soya weanimix!

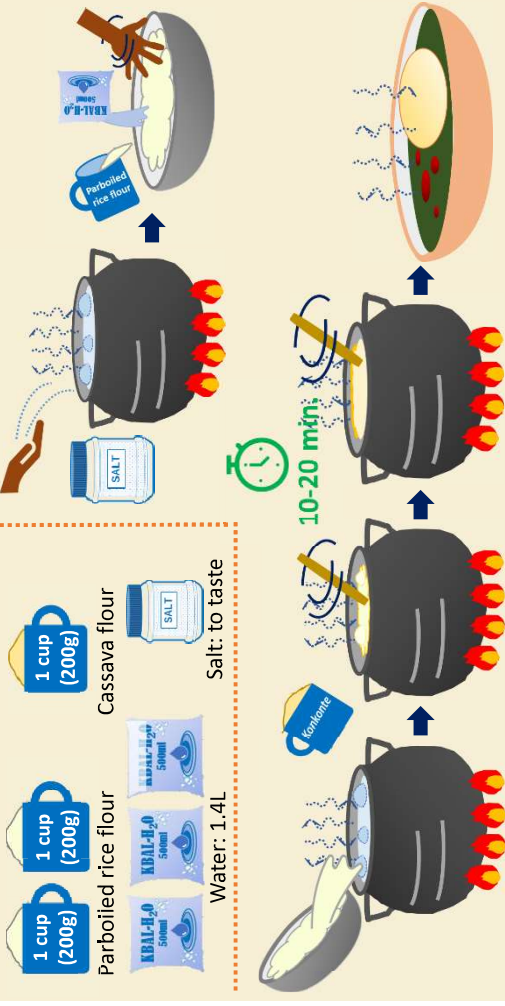


RICE TUO ZAAFI (TZ)

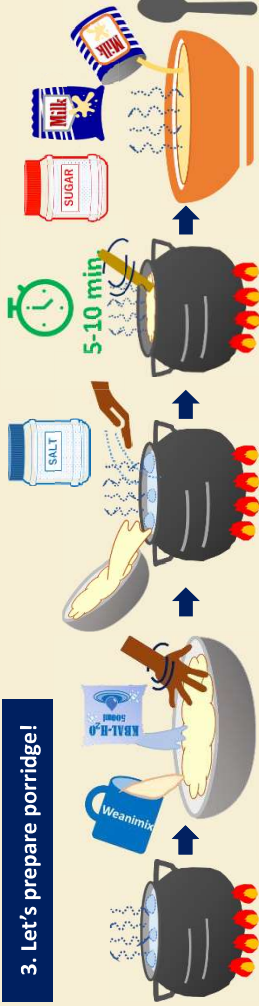
1. Ingredients



2. Let's prepare TZ!



3. Let's prepare porridge!

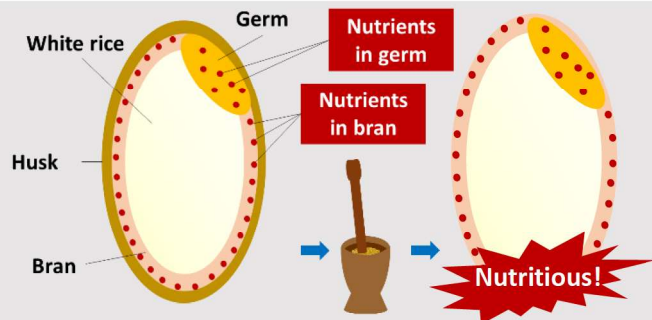


This leaflet/poster was prepared by the MoFA-JICA project (Sustainable Development of Rain-fed Lowland Rice Production Phase II: TENSU12) to promote consumption of domestically produced parboiled rice. All the information here is supported by results of its study to verify nutrition values of the parboiled rice recipes in rural Northern. For any query, please contact MoFA Northern Regional Office (024-497-8988).

EAT HEALTHY!
EAT TASTY!
EAT UN-POLISHED RICE!

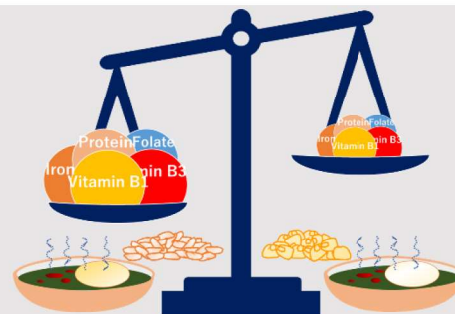


LET'S SEE WHY!

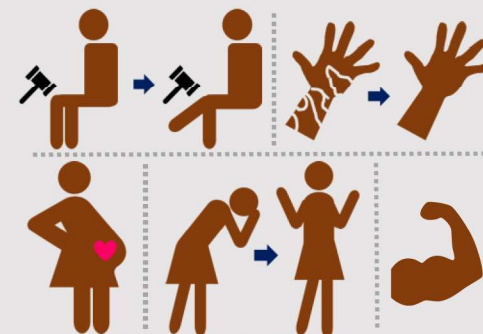


Germ and bran contain nutrients such as vitamin Bs and minerals. **Unpolished** rice is processed by removing only husk and keep bran and germ, therefore it keeps nutrient components!

It is also known the presence of phytates in the unpolished rice has a negative effect on mineral uptake. However, food preparation techniques e.g. **soaking, cooking and fermentation reduce phytate content**. Cooking process of porridge and banku includes these preventive process, therefore recommended rice dishes have less risk of the negative effect of phytates.



Unpolished rice flour porridge and banku contain vitamin B1, vitamin B3, folate, iron or protein sufficiently, even compared to maize flour porridge and banku! These nutrients can contribute to prevent beriberi, pellagra, fatal growth restriction or anemia and to improve muscle strength!



LET'S SEE HOW!

Recipes to serve 4 adults or 6 children

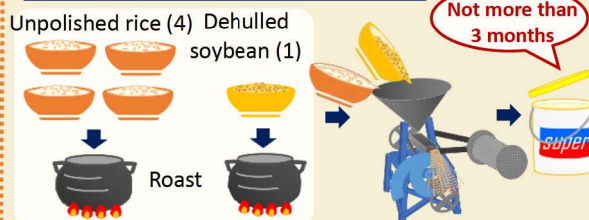


RICE-SOYA WEANIMIX PORRIDGE

1. Ingredients



2. Let's prepare rice-soya weanimix!



3. Let's prepare porridge!

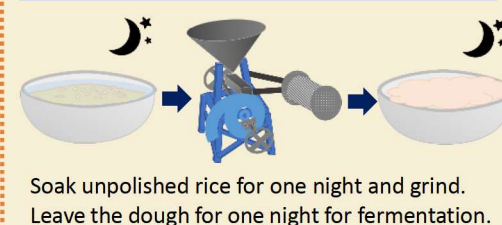


RICE BANKU

1. Ingredients



2. Let's prepare unpolished rice flour dough!



This leaflet/poster was prepared by the MoFA-JICA project (Sustainable Development of Rain-fed Lowland Rice Production Phase II: TENSUI2) to promote consumption of domestically produced unpolished rice. All the information here is supported by results of its study to verify nutrition values of the unpolished rice recipes in rural Ashanti. For any query, please contact MoFA Ashanti Regional Office (02x-xxx-xxxx).