

**RICE PRODUCTION IN LIBERIA
INCEPTION REPORT (NRDS)**

LIBERIA AT

TSUKUBA (JICA) CENTRE

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By

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PRESENTATION OUTLINE

- Introduction

- a Historical background of Liberia
- B Liberia Geography
- C. political Map view

Rice production in Liberia

- a. Liberian strategy of increasing production
- b. Formulation of **NRDS** and establishment of **RICE SUB SECTOR**
- c. Pre & post harvest losses
- d. Liberia production estimated yield
- e. Liberian farmers final appear.

Historical background of Liberia

- Liberia is a state located on the West coast of Africa. She got her independence on July 26, 1847
- Liberia has the population of 4.2 millions people with 50.3% male and 49.7% female (USAID-BEST 2014)
- The total land area of Liberia is estimated at 9.8million hectares, consisting mainly of tropical rain forest. The total forested land is estimated at 4.9million hectares, or 50 percent of the total land surface

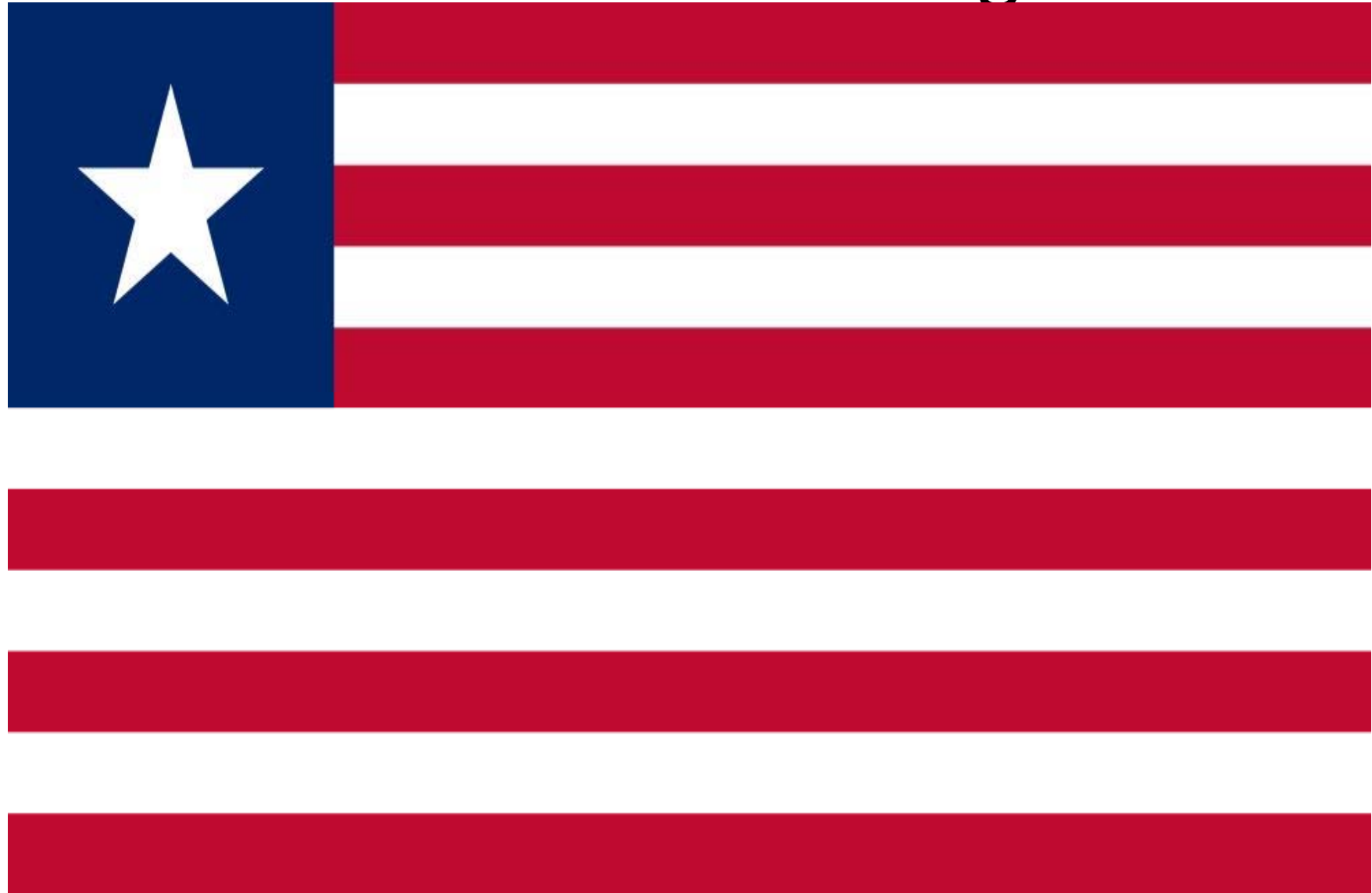
MAP OF WEST AFRICA



Liberia political sub-division

- Liberia is 39,000 square mile in land area.
- The total arable land is estimated at 4.6million hectares or 46 percent of the total land surface of which 4.0million hectares are upland and 600,000 hectares are swamps(lowland inland valley).
- Liberia has fifteen (15) political sub- division
- Bounded on the North by Guinea, West by Sierra Leone, East by Cote d'Ivoire and south by Atlantic Ocean.
- Liberia has six (6) major rivers
- The climate is mainly two types: rainy and dry season
- Annual average rainfall 2,391mm

The Liberian Flag



Liberian seal



OUR PRESIDENT. “The first female
President for Liberia and of Africa”

H. E .President Ellen Johnson Sirleaf





Dr. Moses N Zinnah
Ministry of Agriculture
Republic of Liberia

Center AGRICULTURE RESEARCH INSTITUTE(CARI) LIBERIA



Rice Production in Liberia

- Rice is one of the staple food crop in Liberia
- Rice is predominantly grown in upland environment by smallholder farmers, with a limited percentage devoted to lowland ecology.
- The low input low risk production keeps the rice yields in upland persistently low in Liberia.
- Given the social and political significance of rice, there is a strong need for increasing domestic rice production.

The Harvested field and bags of locally produce 162 hectares rice in Liberia



Rice Production Cont.

- The mini production could not response to the global food crisis in 2008.
- The Government to addressed the situation established the Liberia's National Rice Development Strategies (LNRDS) which aims is to achieve self- sufficiency by doubling the local rice production by the year 2018.
- This should be both increasing production in upland and lowland.

Rice Production Cont.

- The Government developed the Food and Agriculture Policy and strategy (FAPS) in 2008
- The Government established a National Rice Sector (NRS)
- The sector developed the three times growing of rice a year to the farmers by introducing the low land rice production training.

Lowland Rice Production Training

- A good lowland rice farmer/s should take several factors into consideration before establishing a lowland rice farm.
- The factors are site selection for both farm and nursery
- Seed selection and treatment
- NURSERY PREPARATION
- UP ROOTING AND PLANTING OF SEEDLINGS
- LAND PREPARATION
- SOWING OF SEEDLINGS
- RICE PROCESSING AND MARKETING

View of lowland rice nursery and transplanting



Pre - harvest, Harvest and Post Harvest

- Losses can range from 10 to 35 % depending on applied practices (average)
- Pre - harvest activities include drainage, pest & disease and bird attacks
- Harvest activities include method and right time for harvesting
- Post Harvest activities include drying, threshing, transport, packing and storage

Physiological and harvest maturity



Shattering loss (over maturity)



DRYING LOSS



Loss during Threshing



Storage loss

Damage by water erosion



Damage by small stone



Loss during par boiling



Loss due to over drying

Degrade grain by cutting pieces



Milling rice developed into cake



ROAD LEADING TO PROCESSING CENTER



VIEW OF THE PROCESSING CENTER



WEIGHING SCALE AT THE MILLING CENTER



CHALLENGES OF CONSTRUCTED STORAGE FACILITIES

- GAPS BETWEEN THE DOORS AND FLOORS
- INCREASE INCIDENCES OF RODENTS
- POOR HYGIENE CONDITION
- MANUAL STOCKING METHOD

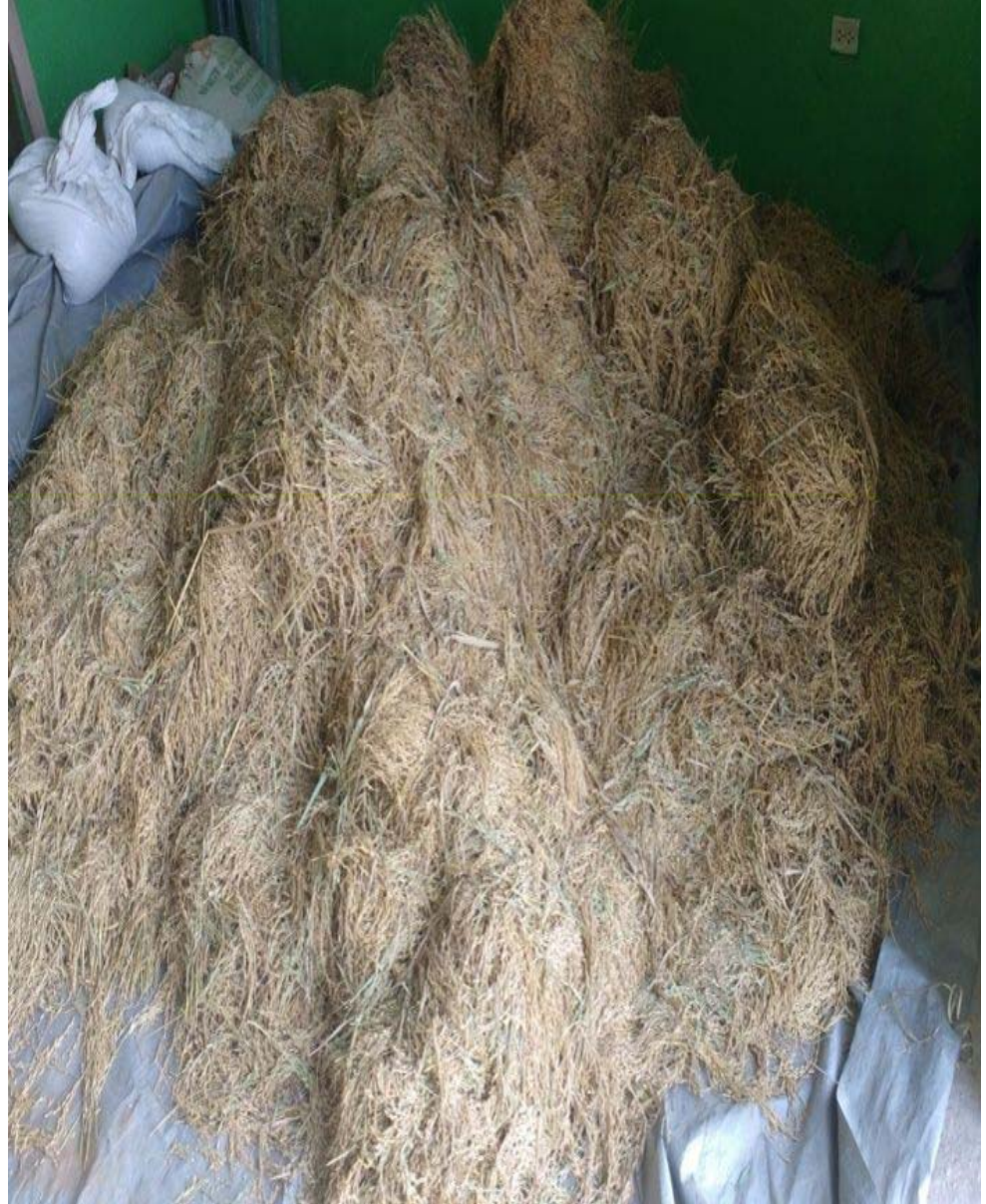
Gaps between the door and floor



Increase incidences of rodents



Poor hygiene Condition



Manual stacking method



Summary of observed losses

Sl.no	Type of losses	Loss (Kg/Ha)
1	Shattering due to delay in harvest	89
2	Birds damage due to delay in harvest	156
3	Pest and Diseases at time of pre harvest	189
4	Lodging of panicle due to delay in harvest	45
5	Rodents damage in the field	45
6	Improper Threshing	243
	Total	767 (22%)
7	Storage pests	11%

RICE STATUS IN NATIONAL POLICIES

- Rice is a central to all Government policies and strategies. HH use. Rice consumption is estimated at 90 kg per person per year.
- At an estimated population of 4.2 million, national milled rice consumption stands at around 378,000 metric tons (MT). Approximately 68 percent of farm HHs in Liberia produce rice, which they grow primarily for their own consumption.
- HHs typically eat boiled rice an average of two times per day if they can afford to do so and accompany this starch either with a sauce containing varying ingredients (e.g., oil, cassava leaves, beans, and as available, fish or other animal protein), or as 'dry rice' when simply eaten with a piece of fish or meat.
- (USAID-BEST, 2014)

RICE PRODUCTION AND COMSUPTION 1990-2008

Activities		Year								
Area (ha)		1990/91	2000/01	2002/03	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Average Yield (tons/ha)		175,000	143,000	120,000	120,000	110,000	152,000	190,000	222,670	247,580
Production (metric tons)		1.03	1.28	0.92	0.92	0.87	0.90	0.90	1.3	1.2
Consumption (metric tons)		180,000	183,000	110,000	110,000	100,000	144,000	170,000	279,000	293,000
Food Assistance (metric tons)		n/a	n/a	n/a	300,000	310,000	320,000	332,000	335,000	335000
Import (metric tons)		n/a	n/a	n/a	100,000	74,000	22,000	20,000	21.000	19,000
Value (US\$ million)		70,000	100,000	100,000	120,000	160,000	154,000	140,000	164	200
Area (ha)		25	37	20	22	140	170	200	214	232
Average Yield (tons/ha)		1990/91	2000/01	2002/03	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10

IN CONCLUSION

- Poverty is rampant in Liberia
- Only 40% of population is food secure
- The country has very good annual rainfall that could facilitate year round production of rice
- The national annual demand for rice in Liberia is approximately 400,000 metric tons while production is estimated at 170,000 metric tons
- There is high potential for contribution of rice to rural development in the areas of increased food security, natural resource management, employment and wealth creation

CONCLUSION CONT.

- LIBERIA NEED YOUR TECHNOLOGIES
FOR
FOOD SECURITY

THANK YOU FOR
LISTENING

