



“Promotion of African Rice Development for
Sub-Saharan African Countries (A)” J1604064

Tsukuba –JAPAN

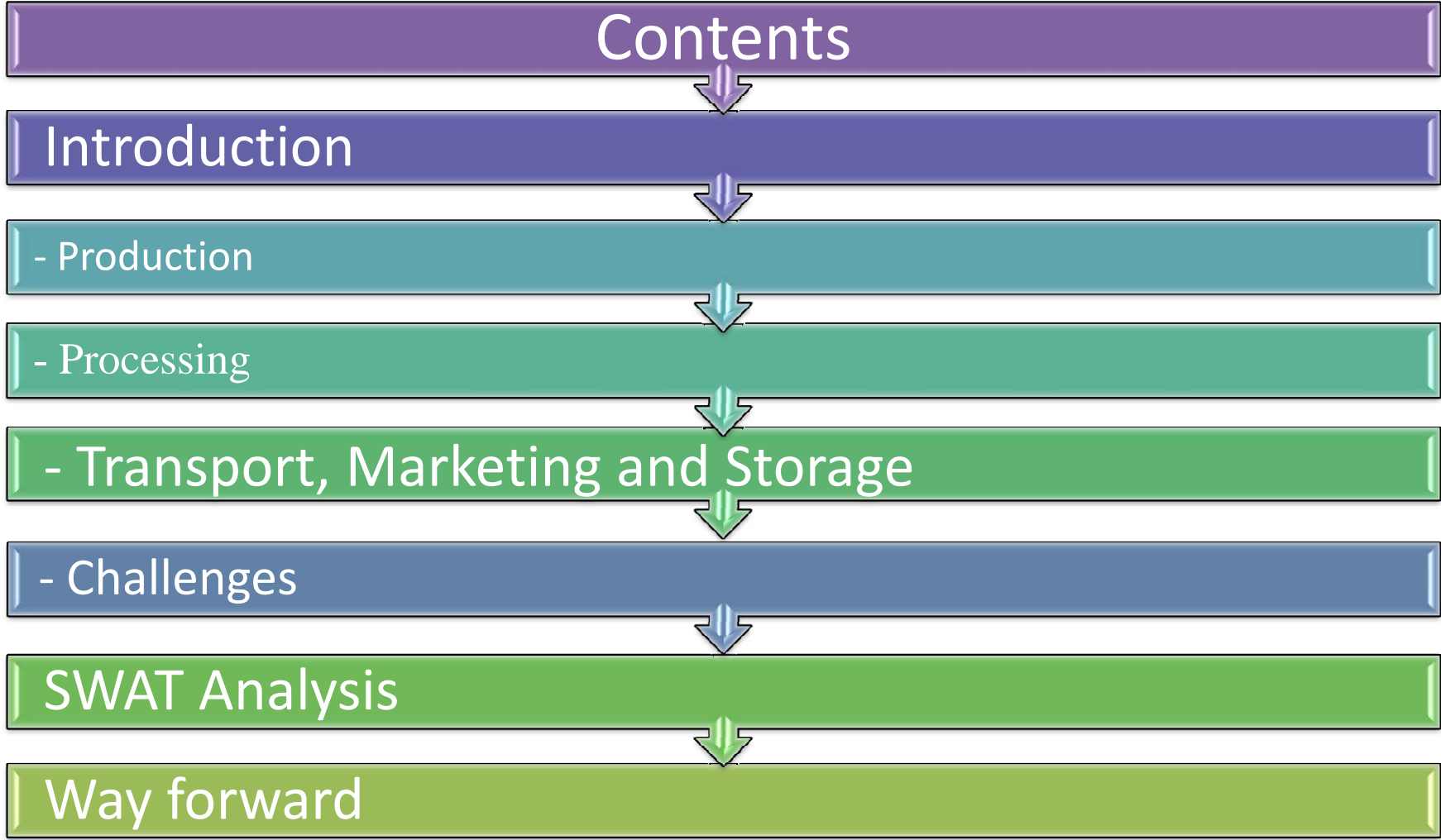
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Rice Situation in The Gambia

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Introduction

Introduction and background

- Population -1,882,450(2013)

- Growth rate of 2.7%

(GBoS, 2013).

- Located in the valley of the Gambia River on the west coast of Africa, The Gambia possesses a good range of suitable ecologies for rice production.

- **Predominantly rain fed**

- ✓ 85.8% of total hectrage

- ✓ 57.8% of total paddy production

- **Ecologies**

- ✓ Upland pure rice fed

- ✓ Hydromorphics (Bantafaros)

- ✓ Freshwater tidal swamps

- ✓ Mangrove tidal swamps

Table 1. Summary of the Main Characteristics of Rice Production Ecologies

System of Production/ Resource Base	Principal Characteristics								
	Location	Soil type	Water Source	Method of Cultivation	Crop Establish	Current Yields kg/ha	Constraint	Potential	%age of Low Land Area
Irrigated wet/dry – 12,727 ha	Swampy land adjacent to Gambia river in CRR and URR of elevated areas.	Alluvial silty clays	Controlled pumping, no drainage	Power tillers	Transplant	(a) 5000 (b) 2000	Plot size needs mech. Iron toxicity	*2 crops	6
Mangrove swamp – 70,834 ha	Swamp adjacent to river subject to saline tidal flooding in dry season freshwater in the wet.	Alluvial silty clays	Freshwater tidal Manual/river flooding in wet season	Manual	Trans-Plant	800	Water control; heavy soils salinity, no access	,Husb.	65
Freshwater tidal Swamps – 70,170 ha	Swamps adjacent to river subject to freshwater flooding in wet season. No saline tide	Alluvial clays	Freshwater flooding by tide or high river	Manual/ Tractor	Trans-plant/ Broadcast	2000	Water control; soils	Husb.	
Rainfed deep flooded swamps – 23,340 ha	Swamp depression away from river/ bolons	Alluvial silty clays high O.M.	Rainfall runoff often supplemented by local flooding	Tractor /Manual	Trans-plant/ Broadcast	1500	Water control; soils , weed, flooding	Husb. Mech	11
Bantafaro – upland rainfed (Hydromorphic/freatic) 32,952 ha	Higher elevation on the borders of the rainfed swamps	colluvial silty/ clays, hydromorphic	Rainfall min. standing water, bunding, 0-25cm	Manual/ Tractor	Broadcast	700	Heavy soils weeds	Husb. Mech	15
Tandaco – upland rainfed 6,098	Upland depression associated with forest canopy, mainly WCR	Sandy loams high O. M. free draining	Rainfall	Manual	Broadcast	1000	Stumps Drought Weeds	Husb. Mech	3

Source: The Rice Industry of The Gambia 1983 and Current Assessment

Intr. Cons...

- Rice is the staple food of The Gambia with a per caput consumption of 117kg per annum of which only 17% is produced locally.
- Attempts for self-sufficiency commenced since 1951 with the Colonial Development Corporation's Rice Farm Scheme
- **1966- 1974**
 - ✓ implementation of a Taiwanese-Gambian Technical Assistance Agreement
- **1973-1976**
 - ✓ an IBRD-IDA-supported project from mid-60s to mid-70s
- **Vision 2016**
 - ✓ The most recent rice specific time-bound policy action is the pronouncement of a Vision of rice self-sufficiency by the year 2016 by His Excellency the President.
- The country has a long history of rice importation to meet its deficit in consumption.

Production

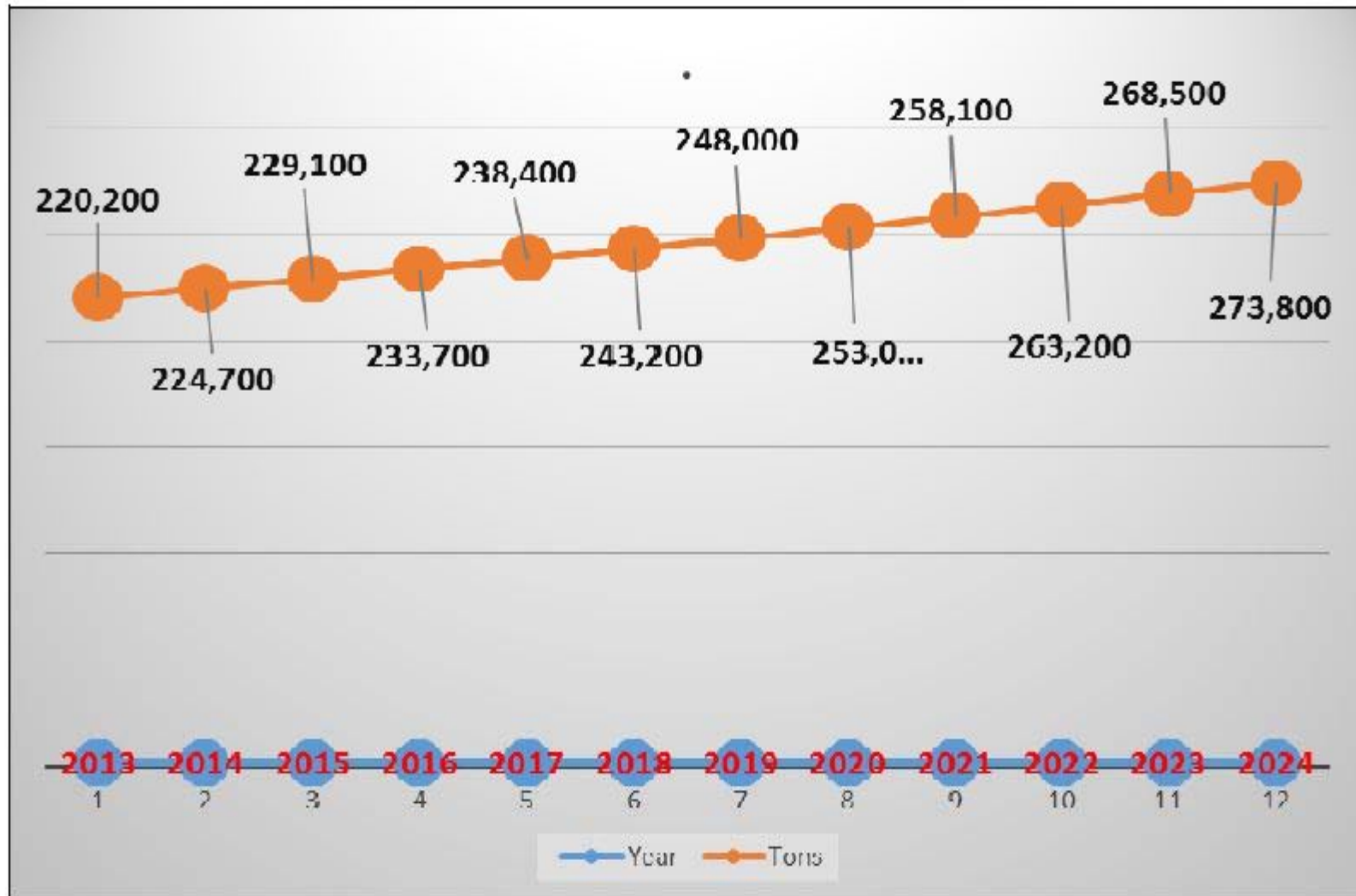


Figure 1. The National Demand for Rice and Projected Values to 2024

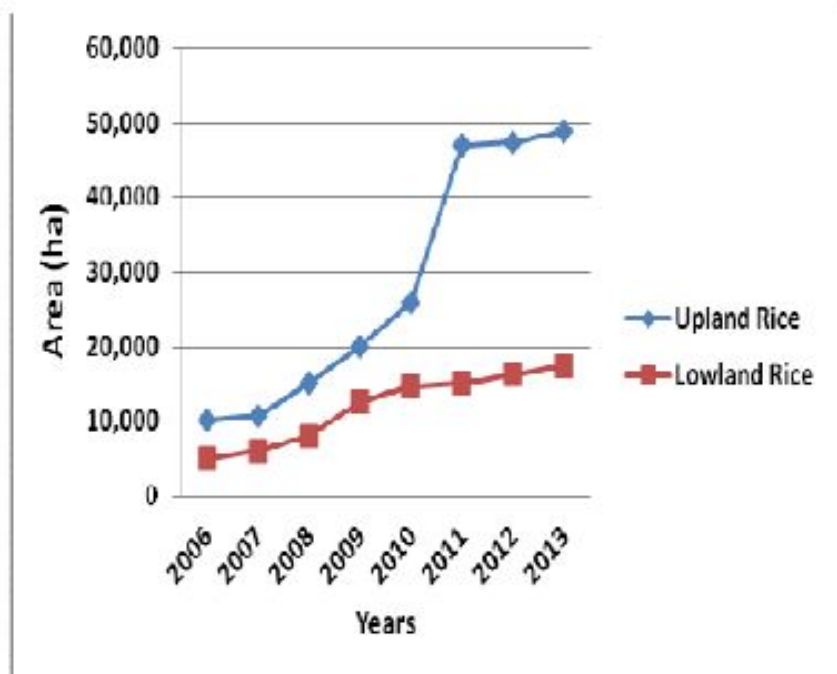


Figure 2. Upland/Lowland cultivated areas (ha.)

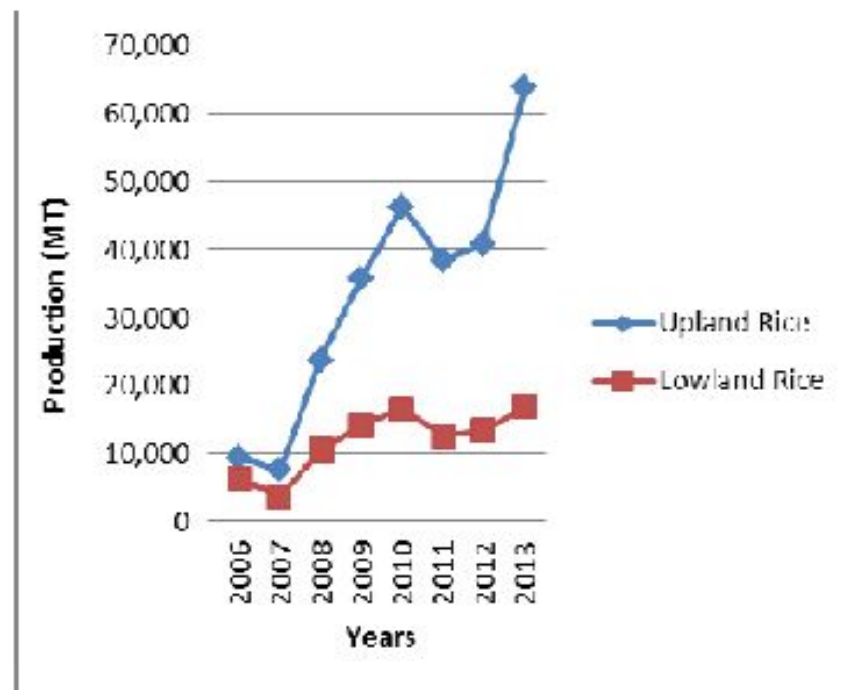


Figure 3. Upland/Lowland Productions (MT)

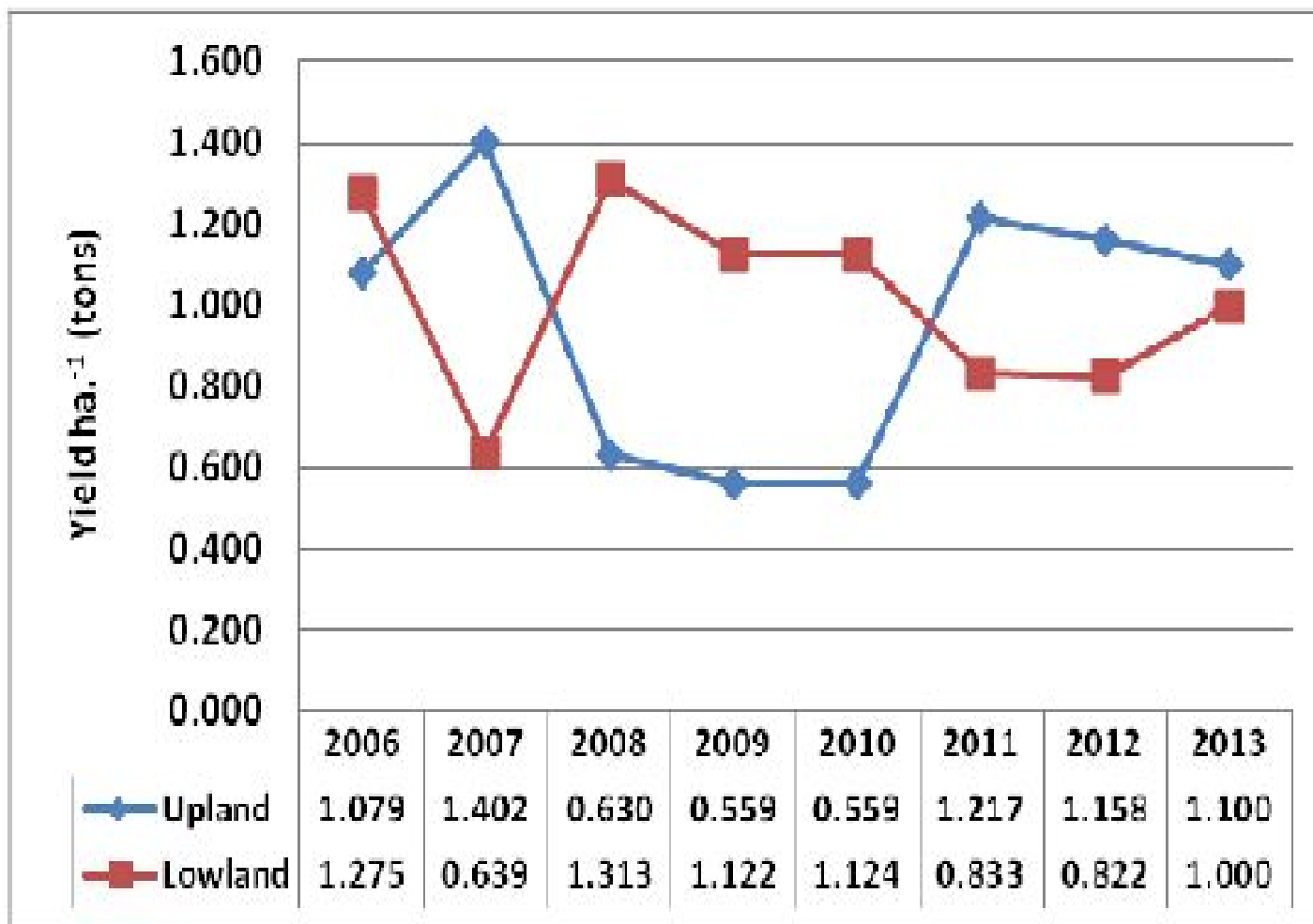


Figure 4. Relative Upland/Lowland Yields/ha

- According to the Department of Agriculture, NASS Report 2013, only 19% of the annual demand of 219,960MT is produced in the country, while 81% has to be imported.
- The total available land in the Gambia is put at 1,036,534 hectares classified into various categories according to soil suitability.
- There are, however 558,000 hectares considered suitable for agricultural production covering all 6 regions. Of the 320,358 hectares cultivated in 2007, 63.3 percent was put under cereal production (mostly millet), while 36.7 percent was put under groundnut the main cash crop. Only 5.2 percent was put under rice.

Processing

- There are very few modern processors with threshing and milling facilities. However, current projects are making effort to mechanize the processing aspect of the rice value chain.
- The NERICA project has bought some threshing and milling machines which were given to the NERICA Farmers' Associations in different agricultural regions



Plate 1: Manual threshing



Plate 2: Mechanized blower

Transport, Marketing and Storage

- The marketing of rice is mainly carried out by private dealers although farmers also mill part of their rice for sale directly to consumers or traders.
- A good number of traders sell milled rice at village markets and/or “lumos”.
- Milled rice is sold in two forms either in 50kg bag or by cup (a tin of about 230 grams).



Plate 3: Access road condition to the fields





Plate 4: Harvesting in progress



Plate 5: Drying at field level

Challenges

Challenges

Production

- Access to and use of land preparation equipment
- Access to and use of chemical fertilizer
- Access to improved varieties
- Access to and use of pesticides
- Labor shortage during pick farm operation

Processing

- drying floors
- drying machines
- Rice threshers
- Rice blowers/winnowers
- Rice cleaners
- Rice graders
- Standard rice milling facilities
- Color sorters
- Packing machine
- Parboilers- there are serious campaign to re-introduce this process but local methods do exist.
- Polishing

Salinity and drainage problems; limited skilled human resources in the field of irrigation techniques and irrigation water management

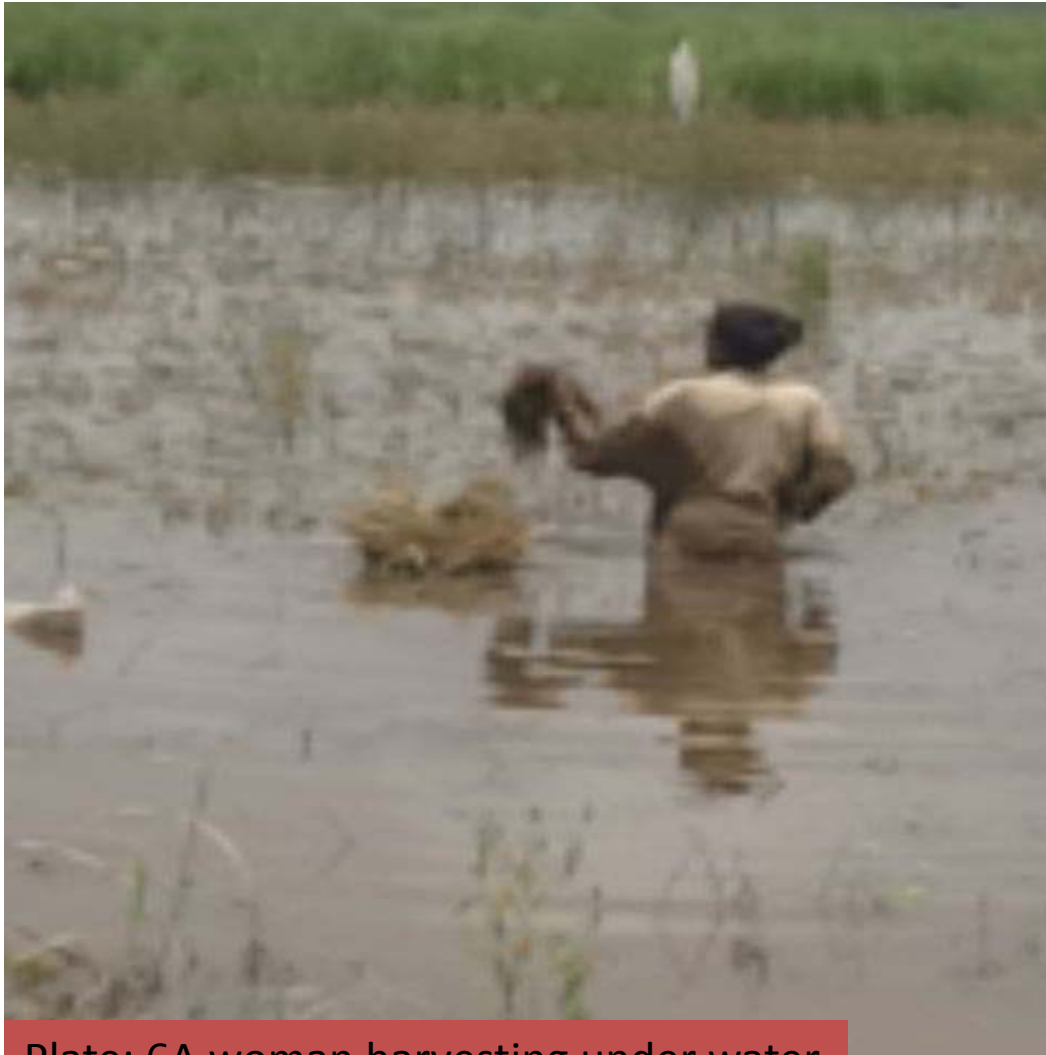


Plate: 6A woman harvesting under water



Plate: 7 De-silting of canals



Plate: 8 Aquatic weed challenge

Challenges

Transport and Marketing

- Good roads to rice farms and markets
- Most farmers have no donkey or horse carts
- Market structures for rice farmers
- Surplus rice produce for sale
- Market information
- Scattered fields

Storage

- Standard stores (palates, ventilation)
- Right bags for storing rice
- Moisture testing materials (Moisture meters)
- Rodents and insects
- Store treatment issues

Opportunities

- Some 56% of the country's land area or **555,240** ha, are considered suitable for agriculture
- Of the **216,121** ha of lowland area, **81,120** is considered suitable for irrigation.
- Out of the total arable land area, about **407,484** ha (about 73%) was cropped in 2013 of which **68,712 ha** was under rice, comprising of 48,946 ha upland, 17,434 ha lowland and 2332 ha irrigated.
- There is therefore, an unexploited lowland potential of **196,355** ha for rice production.
- Similarly, of the **339,119** ha arable upland area 338,772 ha was under cultivation in 2013 and there was an unexploited potential upland area of only 347 ha.

Way forward

- Policies guiding rice production and land use
- Research capacization
- Improve varieties
- Infrastructural development- drainage facilities, storage, drying floors.
- Irrigation and water management
- ✓ Drainage time needs to be satisfactorily controlled during the rainy and dry seasons, and the farmers must be able to take advantage of flood and ebb tides in order to increase rice output.
- Farmers must be trained in effective rice cultivation techniques.
- Farmers' **associations or similar organizations** need to be established or strengthened, and cooperation improved. Such associations could handle agricultural loans and savings, etc.

SWAT ANALYSIS OF RICE PRODUCTION, PROCESSING AND MARKETING

Strengths at research level	Weakness	Opportunities	Threats
-Available know how	-Lack of policies -Poor farmer organization	-81% of the rice consumed is imported	-Poor marketing channels
-Trained man power i.e. extension	-Limited area for registered and certified seed production	-Willingness among farmers to produce rice	-Poor quality seed due to delays in milling - Saline intrusion
-Drying and cleaning facilities	-Limited processing facilities -Inadequate trained man power i.e. extension workers	-Awareness to make use of good quality seed	-Poor profitability due to increased fuel and urea price discourages commercialization
-Excellent fields conditions	-Poor seed production organization	-Availability of fresh river water	-Poor road network to the fields
-Approval of the seed act	-Lack of qualified personnel	-Donor support regarding rice production and processing facility	-Hippo invasion - Poorly developed input supply chain to support rice production

**Thank You for Your
Attention**

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