

## PROMOTION OF AFRICAN RICE DEVELOPMENT THROUGH STRENGTHENING COORDINATION BETWEEN CARD AND CAADP FOR SUB-SAHARA AFRICAN COUNTRIES JULY 27 - AUGUST 2, 2014

### SIERRA LEONE REPORT

Presented by:

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## MOST RECENT ACTIVITIES

### 1. Agriculture Sector Review: April - June 2014

- ◉ Review of agriculture, forestry and fishery sectors performance 2004 – 2014
- ◉ Assess policy and institutional initiatives effectiveness
- ◉ Diagnostics: analysis of sectoral constraints and sources of growth
- ◉ Provide independent view on future sector policies, scenarios and implementation options – “out of the box”, strategic and forward looking...  
...with the consideration of the lessons learned
- ◉ Agriculture Public Expenditure Review



## 2. NRDS/RICE HUBS WORKSHOP- JUNE 23-24, 2014

- Review the progress in the implementation of the NRDS
- Identify mechanisms and procedures for the establishment and operationalisation of the rice hubs
- Identify the roles and responsibilities of actors involved in out-scaling
- Identify the needed resources

### 3. SRD PROJECT CLOSURE FORUM (JICA/MAFFS)

- TP-R and extension method endorsed by the forum
- To be up scaled countrywide
- Another phase of SRDP is required





## COUNTRY DEVELOPMENT PROGRESS (ASR)

### Sierra Leone:

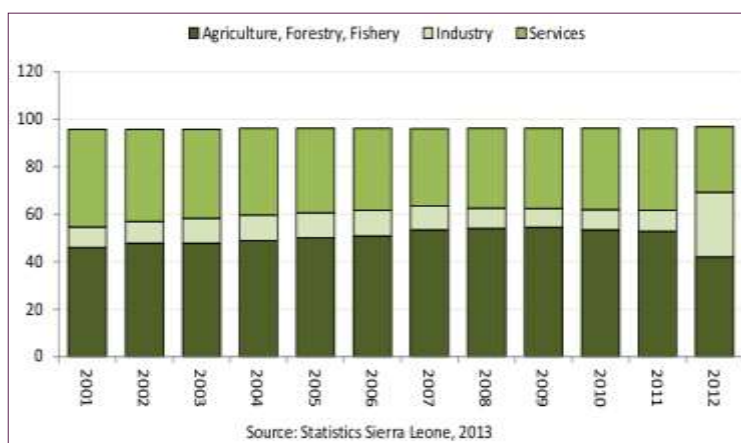
- ◉ Moved beyond the WB Fragile and Conflict Affected Country status in 2014
- ◉ Ranked #59 most peaceful country of 161 (Global Peace Index, 2013| USA #88, South Africa #127)
- ◉ In 2014, GDP has grown from \$1.43 B to \$5.7 B (IMF, 2003-2014)
- ◉ GDP per capita grew by from \$288 to \$900 (IMF,2003-2013)
- ◉ Public debt to GDP declined from 142% in 2005 to 26% in 2012
- ◉ Poverty declined from 79% in 2003 but still high at 52% in 2011

## AGRICULTURAL SECTOR STRUCTURE

- Decrease of agricultural HH from 65% to 57% (WB, 2013)
- 47% of crops are produce on farm 2 Ha or less (ATS, 2011)
- 53% crops are produced on larger farms representing: Medium and large enterprises
- 85 foreign investors and joint ventures in MAFFS database
- FDI in agriculture is INCREASING

Source: DTIS 2013

## AGRICULTURAL SECTOR CONTRIBUTION TO GDP



## POLICY FRAMEWORK: AGENDA FOR CHANGE-2007-2012

- ◉ Set the vision of “making agriculture the engine for socio economic growth of the country through commercialization and private sector development”
- ◉ 5 Key Policy Development Objectives (PDOs)
  - ◉ - Intensification and value addition
  - ◉ - Extensification through mechanisation
  - ◉ - Promoting TDDA (R & E)
  - ◉ - Efficient and effective resource management
  - ◉ - Mainstreaming cross-cutting issues(gender/youth, farmer health, climate change, nutrition security, safety nets, resilience, etc.)

## ◉ NSADP 2010-2030 (LONG TERM ROAD MAP TO DEVELOP THE AGRICULTURE SECTOR); THE COUNTRY’S CAADP COMPACT; NRDS INCLUSIVE OBJECTIVES:

- ◉ -Increase in the agricultural sector growth from 4% to 7.7% pa by 2015; 5.4% in 2013
  - Increased incomes of farming households by 10 percent
  - increased household food security by 25 percent.
- ◉ SCP 2010-2014: first phase of the NSADP
- ◉ Agenda for Prosperity (AfP)
  - Goal: Green Middle Income Country by 2035:**
  - ◉ **Hunger eradicated**
  - ◉ **90% of population literate**
  - ◉ **80% above the poverty line**
  - ◉ Agriculture, Fisheries and Agro-industry Programme (AFAIP) 2014-2018 (Presidential Initiative)
  - ◉ Goal: Enhanced Food and Nutrition Security through increased:
    - Availability
    - Accessibility
    - Utilisation
    - Stability

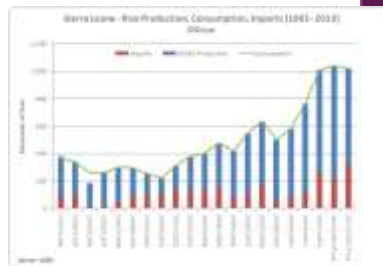
## DIAGNOSTICS OF CROPS SECTOR - STAPLES

### Achievements:

- Staple crops, including rice production increased by more than 200% since 2003
- Cash crops production and exports increased

### Challenge:

- In 2002 Sierra Leone was 57.45% self-sufficient in rice, 71% in 2009(NSADP, 2009) and 91% in 2012 (PEMSD, MAFFS)
- From 2007 to date, rice production has increased from 588.4 to 1,141,417 Mt = 35% increase (CILS/FAO/WFP). However, the demand has also been growing leading to increased imports.



Year	Production	Imports	Consumption	Stocks	Exports
2001	481.00	30.00	240.00	22.00	15
2002	490.52	10.93	381.25	31.76	20
2003	421.07	11.90	430.91	35.83	25
2004	462.83	12.08	434.67	30.22	20
2005	542.00	13.22	458.17	32.17	15
2006	521.88	13.74	510.63	36.83	15
2007	582.00	20.56	510.02	30.80	22
2008	582.00	21.88	510.07	33.27	20
2009	650.18	23.53	510.58	41.88	20
2010	802.42	44.08	2,112.58	278.87	70
2011	1,328.07	31.56	3,220.04	350.18	12
2012	1,987.45	55.22	8,191.17	391.98	11

Source: PEMS, MAFFS (2012)

## CROPS SECTOR DIAGNOSTIC - DIVERSIFICATION

### Crop production diversification:

- Rice is the staple crop (but there are others which are more profitable). Rice is ranked as the 23rd most profitable crop compared with sorghum, plantains, millets and groundnuts, which are ranked as 5th, 6th, 7th, and 8th, respectively (SAM, 2011).

### Smallholders farmers to feed the nation:

- Smallholder farmers with small farm sizes (56% cultivate less than a hectare and 44% cultivate 1 hectare or more) with large families (averaging 6 people per household). It will be a colossal task for smallholder farmers to achieve this ambitious national goal. More support must be provided to bigger commercial farms.

## AGRICULTURAL RESEARCH DIAGNOSTICS - 1

- ◉ **Funding for research:**
  - Research is expensive and is a long-term investment. Adequate funds are needed to pursue pertinent demand-driven research.
- ◉ **Inadequate research capacity**
  - Inadequate human and infrastructural capacity to conduct research along the value chain.
- ◉ **Research focus for speedy and greater impact**
  - Research institutes need to refocus their activities on demand-driven and quick impact research.
- ◉ **Development of an enabling research policy**
  - A vibrant enabling research policy is needed to articulate development initiatives.

## AGRICULTURAL RESEARCH DIAGNOSTICS - 2

### **Poor dissemination and adoption rate of research results:**

- One of the major problems facing research in Sierra Leone is the low rate of adoption of research results.

### **Conservation of natural resources**

- Most of the indigenous crops and livestock species in Sierra Leone are adaptable to the climate and resistant to many diseases. There is every rationale to conserve these species.



### Alignment of NRDS to SCP and CAADP

NRDS Components	SCP - Smallholder Commercialization
1. Development of infrastructure for access to market	<p><u>Component 1</u>: Smallholder Commercialization: production intensification, diversification, value addition and marketing</p> <p><u>Component 3</u>: Market Access Expansion through Feeder Road Rehabilitation</p>
2. Development of infrastructure for quality improvement	<p><u>Component 1</u>: Smallholder Commercialization: production intensification, diversification, value addition and marketing</p>
3. Rehabilitation and development of inland	<p><u>Component 2</u>: Small scale irrigation development</p>

4. Support to farmer based organisations in the form of capacity building .	<p><u>Component 1</u>: Smallholder Commercialization: production intensification, diversification, value addition and marketing</p>
5. Provision of inputs and farm machinery	<p><u>Component 1</u>: Smallholder Commercialization: production intensification, diversification, value addition and marketing.</p>
6. Production of suitable planting materials	<p><u>Component 1</u>: Smallholder Commercialization: production intensification, diversification, value addition and marketing</p>
7. Support to rural financial services associations and community banks	<p><u>Component 4</u>: Smallholder Access to Rural Financial Services</p>
8. Human resource	<p>Component 6: Coordination, Management,</p>

## PROGRESS IN THE IMPLEMENTATION OF THE NRDS

- ◉ The Coalition for African Rice Development (CARD) initiative was launched at the Tokyo International Conference on African Development in 2008 and spearheaded by JICA, NEPAD, AGRA
- ◉ The goal is to double rice production in Sub-Saharan Africa from 14 to 28 millions tons in 10 years (2008 - 2018)

- ◉ Achieving this goal required Governments to develop a plan of action for the sustainable development of the rice sector
- ◉ CARD facilitated the development of National Rice Development Strategies (NRDS) in 23 sub-Saharan countries
- ◉ Sierra Leone's was finalized in 2009

## NRDS GOAL

- ◉ To lay out a framework for significant increases in rice production in order to contribute to the improvement of food security and economic development in Sierra Leone

## SPECIFIC OBJECTIVES

- ◉ Ensure an increase in the sustainable productivity and production of rice in Sierra Leone
- ◉ Promote appropriate post harvest handling, processing and marketing of rice
- ◉ Develop appropriate infrastructure for rice production and marketing
- ◉ Improve the capacity of stakeholders and institutions involved in rice sector

## STRATEGY FOR INCREASING RICE PRODUCTION

Two pronged:

- ◉ (1) increase in area cultivated, mainly in the lowlands where there is much underutilised capacity and great potential for higher yields
- ◉ (2) increases in productivity per unit area in all ecosystems.

## NRDS TARGET

- ◉ To achieve rice self sufficiency by 2013. This objective will be met with a total land area under rice extended to 830,000 ha and an increase in the average rice yield/ha from 1 to 2 mt/ha.
- ◉ A further extension of the area to 1,100,000 ha over the next five years, and an increase in the average yield of rice to 4 mt/ha will result in the production of over 3 million tons of rice in 2018

## MAJOR CATEGORIES OF ARABLE LAND IN SIERRA LEONE

Ecology	Ecosystem	Arable land area (ha)	Percent of arable land
Upland		4,300,000	80
Lowland	I.V. Swamp	630,000	12
	M. Swamp	200,000	04
	Riverain Grassland	110,000	02
	Boliland	120,000	02
	<b>Total</b>	<b>5,360,000</b>	<b>100</b>

## NRDS PROJECTED TARGETS FOR 2013 AND 2018

Ecology	2013			2018		
	Area (Ha)	Yield mt/ha	Prod. (Mt)	Area (Ha)	Yield mt/ha	Prod. (Mt)
Upland	400,000	1.25	500,000	425,000	1.50	637,500
IVS	225,000	2.50	562,500	400,000	4.00	1,600,000
Mangrove	100,000	2.25	250,000	125,000	3.50	437,500
Riverain	25,000	2.50	62,500	50,000	3.50	175,000
Boliland	80,000	1.50	120,000	100,000	2.50	250,000
<b>Total</b>	<b>830,000</b>	<b>2.00</b>	<b>1,495,000</b>	<b>1,100,000</b>	<b>4.00</b>	<b>4,400,000</b>

## RICE SECTOR DEVELOPMENT STRATEGIES

1. Delivery of high quality inputs: seeds of improved rice varieties and affordable fertilizers and other agro- chemicals
2. Reducing Post Harvest losses , and widening the demand base for Rice
3. Marketing: Improving rice processing, ensuring accessibility, affordability and product quality assurance
4. Water Resource Management: Development of irrigation and drainage systems necessary for rice production
5. Mechanization: Facilitate expansion of cultivated areas (reducing drudgery in agriculture) and mechanise along the value chain
6. RESEARCH: Developing improved and appropriate technologies for increasing productivity potential (reducing the yield gap)
7. Extension : Transferring improved and appropriate technologies to farmers to enhance the capacity of the rural population to raise their standard of living, using locally available resources
8. Human Resources Development: Increasing the number of adequately trained and sufficiently motivated agricultural personnel
9. Agricultural Finance/Credit: Facilitating access to adequate and timely investment funds for agricultural development.

## GOVERNMENT AND DEVELOPMENT PARTNERS INTERVENTIONS

### REVISED LIST OF ONGOING AND PLANNED RICE PROMOTION PROJECTS/PROGRAMMES (2013)

Code	Title	Partners
SL-1	Agricultural Sector Rehabilitation Project (ASREP)	ADB
SL-2	Rehabilitation and community-based poverty reduction project (RCPRP)	IFAD
SL-3	Rural Finance and Community Improvement Programme	IFAD
SL-4	Hybrid Rice Promotion	China
SL-5	Program for the intensification of agricultural production	GoSL
SL- 6	Purchase for Progress (P4P)	WFP
SL- 7	Rural and Private Sector Development Project	WB
SL- 8	Sustainable Rice Development Project	JICA
SL- 9	Conservative Agricultural Development	CARE

Code	Title	Partners
SL-10	Global Agriculture and Food Security Programme Support to SCP, to 2016.	GASFP – Multi- T Fund
SL-11	Mainstreaming the Right to Food and Nutrition into the SCP	FAO/Germany
SL-12	Strategic Planning and Economic Analysis Support to MAFFS and district councils	USAID
SL -13	West Africa Agricultural Productivity Programme (WAAPP – 1C)	WB/Japanese Government
SL-14	Diversified Food Production Project	IDB
SL-15	Phase II – Rural Finance Programme –	IFAD
SL-16	Support to SCP – Linking Smallholder Farmers to Markets	IDB
SL - 17	Integrating Adaptation to Climate Change into Agricultural Production in Sierra Leone (Rehabilitation of 500 ha of IVS)	GEF

## SEED SECTOR INTERVENTIONS

Policy / Institutional	Infrastructure	Human resource capacity	Provision / support	Information / knowledge
Development of seed law/regulation and policy document	Gene bank at SLARI and regional cold rooms under rehabilitation	Training of seed producers	Seed support to FBOs	Sensitization on seed law and regulations
Establishment of the National Seed Board and operationalization of the Seed Certification Agency (SLCASA)		Training seed lab technicians	Lab equipment for seed testing, planting materials	
ECOWAS regulations on seed, seedlings and pesticides)		Recruitment of seed system technical staff		

## FERTILIZER INTERVENTIONS

Policy / Institutional	Infrastructure	Human resource capacity	Provision / support	Information / knowledge
Quality control Subsidized Pricing	Agriculture Business Centres as conduit	Training agro-dealers	Credit/Grants/cost recovery	Fertilizer use



## IRRIGATION/WATER MANAGEMENT

Policy / Institutional	Infrastructure	Human resource capacity	Provision / support	Information / knowledge
<p>Policy/ legislation on development and exploitation of water resources</p> <p>IVS policy development</p>	<p>Inland valley swamps/ water control systems development</p> <p>Development of large scale irrigation schemes (Rolako, Komrabai Mamayla, Rhombe etc)</p>	<p>Youth training as service providers for Water Control Systems</p>	<p>Production package support on cost recovery</p>	<p>Utilization of the developed swamps for two or three cropping season</p> <p>Iron toxicity control</p>

## ON FARM TECHNOLOGY DISSEMINATION (EXTENSION)

Policy / Institutional	Infrastructure	Human resource capacity	Provision / support	Information / knowledge
<p>Farmer Field and Business Schools Extension approach</p> <p>Research and extension advisory services policy,</p>	<p>Rehabilitation of Makali and Lamabayam a Training Centres</p> <p>Mobility for field staff</p>	<p>Training farmers, researchers and extension staff</p> <p>Recruitment and training of 375 frontline extension technical staff</p>	<p>Seed, fertilizer, power tillers. Rice planters</p>	<p>Fact sheets, flyers, radio programs, quarterly newsletter – "Inside the Farm", "Farmer Talk", "SCP Hour", "Agri News"</p> <p>Field demonstrations</p> <p>Innovation platforms</p> <p>Farmer performance</p>

## MECHANIZATION

Policy / Institutional	Infrastructure	Human resource capacity	Provision / support	Information / knowledge
<p>Elaboration of policy/regulation ( testing, after sales service, importation, certification), ways and means of promoting private sector</p> <p>Tractor Hire Purchase Policy</p>	<p>Equipment of existing 13 district workshops (repair and maintenance)</p>	<p>Training of Operators</p> <p>Train manpower for 13 existing district workshops</p> <p>Train users and local artisans in operation and basic repair and maintenance</p>	<p>Power tillers, tractors, threshers, Rice mills, graters, Tool kits</p>	

## QUALITY IMPROVEMENT

Policy / Institutional	Infrastructure	Human resource capacity	Provision / support	Information / knowledge
<p>Elaboration of grading system for milled rice</p> <p>Packaging and branding ("Sierra Rice", "Arul Rice", "Konokoi")</p>	<p>Agricultural Business Centres (ABCs). Drying floors, Rice storage facilities,</p>	<p>Training of processors</p>	<p>processing equipment (Rice mills, de-stoners, moisture metres, jute bags etc.)</p>	<p>Adverts, exhibitions during trade fairs, etc</p>

## ACCESS TO MARKET

Policy / Institutional	Infrastructure	Human resource capacity	Provision / support	Information / knowledge
<p>Develop a policy for supply of local rice to public institutions (in progress)</p> <p>Establishment of a Strategic Grain Reserve</p> <p>Institutional Feeding</p>	<p>Feeder/Access roads</p> <p>market facilities (stalls, stores and processing facilities)</p> <p>Construction and equipping of agribusiness centres (rice mills, input-output shop, drying floors, water facilities)</p>	<p>Train local road contractors</p>	<p>Road maintenance machinery/ equipment to district councils</p> <p>10 ton trucks to haul produce to markets</p> <p>Linking farmers to bulk purchase markets such as WFP P4P, Brewery, Bennimix Factory, etc</p>	<p>Market information system</p>

## ACCESS TO CREDIT

Policy / Institutional	Infrastructure	Human resource capacity	Provision / support	Information / knowledge
<p>Rural finance Policy</p> <p>Establishment of Innovation Fund for Agricultural Transformation (IFAT)</p>	<p>Construction and equipping of village and community banks</p> <p>Apex banks - to supervise village and community banks)</p>	<p>Training in loan management for beneficiaries</p>	<p>Seasonal loans to farmers</p>	<p>Leaflets, flyers, radio and TV jingles</p>

## RESEARCH

Policy / Institutional	Infrastructure	Human resource capacity	Provision / support	Information / knowledge
Research along the value chain	Rehabilitation/ Construction of MAFFS and SLARI offices, labs and staff quarters – 5 districts)  construction of seed labs, offices and residential quarters and training centres)	Training in strategic planning, economic analysis and development of agricultural development plans at district level  Training research scientists and extension staff	Competitive/Non competitive research grants	Dissemination - Seminars, workshops, leaflets, posters, radio program, newsletters,

## OTHERS/UNCLASSIFIED

Policy / Institutional	Infrastructure	Human resource capacity	Provision / support	Information / knowledge
		Training in strategic planning, economic analysis and development of agricultural development plans at district level	vehicles - buses, pickups, trucks, motorcycles, bicycles, boats	Decentralization Sensitization on slash and burn  Dissemination - meetings, leaflets, posters, radio program, newsletters,

## RICE PRODUCTION STATUS

PARAMETER	2013 TARGET	2012	2018 TARGET
Yield (Mt/ha)	2.0	1.87	4.0
Area (Ha)	830,000	605,297	1,100,000
Production (paddy Mt)	1,495,000	1,131,905	4,400,000

\*Source: Agric Stat Bull. Vol III, PEMSD/MAFFS April 2014

Average annual increase in area cultivated 2009 - 2012 = 35,395 ha

Annual yield increase 2009 - 2012 = 0.09 Mt/ha

Average annual increase in production 2009 - 2012 = 81,600ha

At current prod. Levels estimated at 1.13 million metric tons and with an annual average increase of 0.09mt/ha, achieving the target 4.4 million metric tons by 2018 requires quadrupling of efforts in all fronts.

## CHALLENGES AND OTHER ISSUES

- Need to up-scale rice development projects and output
- Detailed collation of quantitative data on results of interventions
- Lack of visibility of the NRDS
- Review of NRDS targets
- Review strategies for achieving targets
- Inadequate funding for NRDS Task Force activities limiting its update and advisory capacity role in advancing the rice sector.
- Budget allocation for NRDS task force

