

1. Basic information

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Country	Liberia
Organization	Ministry of Agriculture
Position	Assistant Director / Senior Economist; Sectoral Coordination

2. <u>Current Situation concerning CARD (Coalition for African Rice Development)</u> <u>and NRDS (National Rice Development Strategy) in Liberia</u>

Achievements, on-going activities, and way forward

Please attach the following documents which were generated through the CARD initiative and explain major points of each document, according to the category of your country.

LNRDS

In response to the global food crisis in 2008, the Government of Liberia (GOL) commissioned the preparation a National Rice Development Strategy which received cabinet endorsement with responsibility for implementation placed under the Ministry of Agriculture. The under pinning premise for the rapid national response surround the fact that Liberia produces approximately 48% of its rice consumption and relies on imports for the remaining 52%. The post war reality is that Liberia is food insecure: consumption outstrips production. Hence, the need for urgency in designing and implementing focused strategies to address issues involving enhancing rice production, reducing rice dependence on imports and improving the income and livelihoods of small farmers.

Against this backdrop, the National Rice Development Strategy was prepared and adapted as a major component of the Poverty Reduction Strategy (PRS I and II), the Liberia Agricultural Sector Investment Program (LASIP) and the Smallholder Agricultural Productivity Enhancement and Commercialization Project (SAPEC). The Ministry of Agriculture with other Taskforce members (ministry of Commerce, Finance the Environmental Protection Agency, and partners (JICA, World Bank, FAO, WFP USAID, and local Non-governmental Organization in the Rice Sector will be holding a major Validation workshop in September 2011 to finalize document for legislative approval and adoption as a policy document on Rice development in Liberia.

- 1. Enhancing access to inputs
- 2. Enhancing post-harvest quality improvement
- 3. Enhancing access to market
- 4. Institutional capacity building
- 5. Mechanization

Noticeably, the Liberian National Rice Development Strategy (LNRDS) is a deliberate attempt by the Government of Liberia to develop appropriate interventions in the rice subsector to enhance agricultural production and productivity and ensure food security and rebuilding the rice subsector for which two agro-ecologies of intervention are proposed in

the LNRDS: lowland rain-fed and lowland irrigated. The LNRDS aims to achieve self-sufficiency and build Capacity for rice production. The aim here is to double current rice production volume towards the target of 2018 by us increasing the area under cultivation in the lowland both rain fed and irrigated to at least 500 ha per county Liberia will be able to double production by 2014.

List of NRDS Task Force core members

Harry Woyenene	Department of Planning, Ministry of Agriculture
Gertie K. Sulentueh	Ministry of Agriculture; DRDRE/MOA
Paul K. Jallah	Ministry of Agriculture; DRDRE/MOA
Stephen N. Tenneh	Ministry of Agriculture; Planning/MOA
Francis W. Mwah	Ministry of Agriculture; Planning/MOA
Joseph L. Saysay	Ministry of Agriculture; Planning/MOA
James T. Moore	Ministry of Agriculture; Technical Services
Dr. Sizi Z. Subah	Ministry of Agriculture; Technical Services
Dr. Kamal Battacharya	Catholic Relief Services
Henry N. Goffa	Ministry of Agriculture
Stephen M. Zayzay	Ministry of Commerce and Industry
Augustus B. Fahnbullah	Ministry of Agriculture; Technical Services
Dr. Cokar George	Senior Research Officer
David D. Wounuah	Agronomist, Ministry of Agriculture/PMU
William K. Massaquoi	USAID

-List of NRDS Task Force full members

Name	Title	Organization
Gonyeyee Bartuah	Area Agriculture Coordinator	BRAC
David D. Wounuah	Agronomist, MOA/PMU	Ministry of Agriculture
Edward B. Perry	Director of Extension / MOA	Ministry of Agriculture
Shitan Miura	Country Manager	JICA

Kamal Bhattacharyya	Livelihoods Coordinator	CRA
A.T. Summerville	Senior Agri. Economist Consul.	Ministry of Agriculture
Sean Gollgha	Country Representative	CRS
Joseph L. Saysay	Researcher	Ministry of Agriculture
Joseph T. Kettor	Executive Director	ODAFARA
Emmett Crayton	Project Coordinator	JPFSN/ MOGD
Emamuel Haque	Agriculture Coordinator	BRAC
Norwood Langley	Economist	MOA
HayashNobubide	Project formulation Adviser	JecaGhave
A .Kathiresan	Consultant	CARD
Kaz Fujiwara	Technical Coordinator	CARD SECRETARIAT
Henry Goffa	Communication officer	MOA
Sam R. Yoryor	Planning officer	МоА
Morris Dorbo	Communication Officer	MOA
Ken Kumeh	Assistant Director	MOA
Philip P. S. Tamba	Technical	ODAZARA
Stephen Tenneh	Technical	MOA
Heetor M. Dolo	ADM	СНАР
Amose Tegbaru	Country Rep	IITA
Francis W Mwah	Assistant Director	MOA
Michael D. Titoe	Director	MOA
Tony Babb	Consultant	FED/ DAI VGAID
Chea. B. Garley	Ass. Minister	MOA
James T. Moore	Technical Assistant	MOA

D. G. Tuast	AIDP Coordinator	LIV/ PMU
C. Musa Shieff	Representative	BFPC
John K. Langley Sr.	FARM Manager	LANARM
D. Timse Wilson	Assistant Manager	NAFUL
Morlee Mescole	Chairman	CAF/UL
Sel W. Gahn	AMI	MOC
Emmitt Freeman	Agri. Specialist	QICI
Bronanlyn Sarwe	Representative	NAFUL
Thomas Gbokie	Deputy Minister	Ministry of Agriculture
Dr. Sizi Z. Subah	Deputy Minister	MOA
Dr. Cokar George	Senior Research Officer	MOA
Barbara Z. Quie	Register / File Clack	MOA
Kate Woods	Secretary	MOA

NRDS of Liberia

See attached

2012

National Rice Development Strategies of Liberia Doubling Rice production by 201



Rice is the staple diet of Liberians. Shifting or slash and burns cultivation dominate rice farming in the country. Over 90 percent of the rice produced was done through shifting cultivation on upland soil. Table 3.1 presents the quantity of paddy rice produced and area cultivated for rice in 2011. According to the data, a total of 290,650 metric tons was produced, which is about 97.3 percent of its pre-war (1988) level when production was estimated at 298,630 metric tons. The estimate shows that the quantity of paddy rice produced in 2011 reduced by 1.9 percent as compared to 2010 production estimate, when 296,090 metric tons of paddy rice was reported.

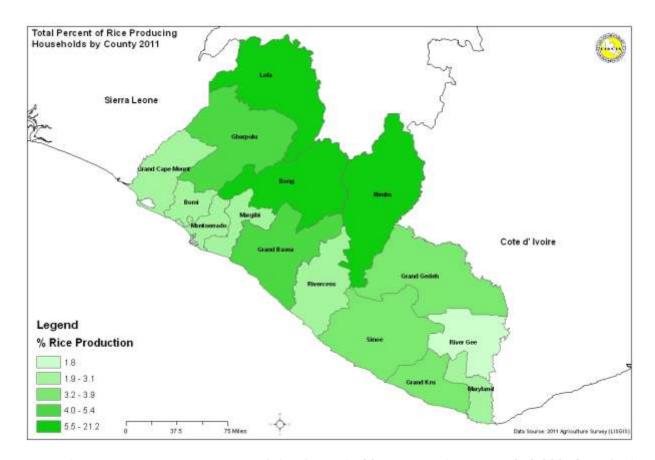
The table reveals that Nimba, Bong and Lofa counties ranked the highest in the 2011 rice production with 61,630 (21.2 %), 60,900 (21.0 %) and 51,440 (17.7 %) metric tons respectively. The combined estimates of these three counties accounted for 59.9 percent of the total production, followed by Gbarpolu with 15,760 (5.4 %) metric tons and Grand Bassa with 15,140 (5.2 %) metric tons. Grand Gedeh and Grand Kru Counties came next with 11,380 (3.9 %) metric tons and 11,270 (3.9) metric tons respectively. The least county was Rivercess with 5,110 (1.8 %) metric tons. The rest of the counties had a level of production ranging from 7,390 (2.5 %) – 9,630 (3.3 %) metric tons.

The table further portrays area of rice harvested during the 2011 crop year. According to the data, area of rice harvested was estimated at 238,780 hectares with an average farm size of 1.0 hectare. Nimba, Bong and Lofa counties had the largest harvested areas of rice with 50,930 (21.3 %) hectares, 47,580 (19.9 %) hectares and 40,500 (17.0 %) hectares, respectively. Next were Grand Bassa with 13,640 (5.7 %), Gbarpolu with 12,310 (5.2 %) and Grand Kru with 9,800 (4.1) hectares; followed by Grand Gedeh with 9,250 (3.9 %) and Sinoe with 8,300 (3.5 %) hectares. The county with the least harvested area was River Cess with 4,960 (2.1 %) hectares. Figure 3.1 portrays the intensity of rice production by means of percentage share by county.

Rice Hectares, Yields per Hectare and Production by County, 2011

	RICE						
		Hect	tares				
County	Farms	Number	% of Tot.	Ha/Farm	ields/Ha(KG	Prod.(Mt)	% of Tot.
Liberia	242,800	238,780	100.0	1.0	1,217	290,650	100.0
Bomi	6,400	7,040	2.9	1.1	1,050	7,390	2.5
Bong	39,650	47,580	19.9	1.2	1,280	60,900	21.0
Gbarpolu	11,190	12,310	5.2	1.1	1,280	15,760	5.4
Grd. Bassa	12,400	13,640	5.7	1.1	1,110	15,140	5.2
Grd. Cape Moun	6,100	7,320	3.1	1.2	1,220	8,930	3.1
Grand Gedeh	9,250	9,250	3.9	1.0	1,230	11,380	3.9
Grand Kru	8,910	9,800	4.1	1.1	1,150	11,270	3.9
Lofa	40,500	40,500	17.0	1.0	1,270	51,440	17.7
Margibi	6,850	6,170	2.6	0.9	1,220	7,530	2.6
Maryland	8,300	7,470	3.1	0.9	1,170	8,740	3.0
Montserrado	7,900	6,320	2.6	0.8	1,170	7,390	2.5
Nimba	63,660	50,930	21.3	0.8	1,210	61,630	21.2
River Cess	6,200	4,960	2.1	0.8	1,030	5,110	1.8
River Gee	7,190	7,190	3.0	1.0	1,170	8,410	2.9
Sinoe	8,300	8,300	3.5	1.0	1,160	9,630	3.3

Level of Intensity of Rice Production by County2011



According to the data, the number of rice farms in 2011 was estimated at 242,800. Out of this estimate, rice farms cultivated by female-headed households were recorded at 55,450 while 187,350 farms were cultivated by male-headed households. This means that 22.8 percent of the rice farms cultivated were owned by females and 77.2 percent of the rice farms by males. Between counties, number of rice farms cultivated by female-headed households was relatively high in three counties, namely: Lofa, Nimba and Bong with 13,080 (23.6 %), 12,670 (22.8 %) and 6,980 (12.6 %) respectively. The estimated females rice farms for these three counties accounted for more than half (59 %) of the number of female rice farms cultivated. Next higher counties in relative term for female rice farms were Grand Kru with 2,660 (4.8%), Maryland and River Gee with 2,550 each (4.6%). Gbarpolu and Grand Gedeh with 2,350 each (4.2%), Grand Bassa, with 2,050 (3.7%) and Montserrado with 1, 980 (3.6%), followed by River Cess with 1,610 (2.9%), Bomi with 1,520 (2.7%) and Sinoe with 1,060 (1.9%). The counties with the least number of female rice farms were Margibi and Grand Cape Mount with 1,020 each (1.8 %).

Under the CARD initiative, the country is currently finalizing the National Rice Development Strategies (LNRDS). The NRDS task force organized a working week 1 (WW1) at Monrovia between April 23 and 27, 2012. The objective of WW1 was to identify the needs, current resources, demands, gaps and the priorities of the Liberia's rice sector. This report presents the outputs of this WW1.

Latest List of Rice Related Interventions in Liberia

MAPPIN	G OF PRS A	AND POLICI	ES RELATE	ED TO AGRI	C DEVELO	IPMENT IN I	LIBERIA	
Project Title (full name)	Food and Enterprise Development (FED)							
Project location	Bong, Niml	ba, Lofa, Gra	and Bassa, I	Margibi, and	Montserrac	do		
Budget	US \$ 32 m	illion over fiv	e years					
Project type	3 &5							
	1. Grant 2.	Loan 3.Tech	nnical Coop	Asst. 4.natio	nal Budget.	5. Private se	ector	
Field support	1. Policy 2. R&D 3. Extension &training 4. Production 5. Marketing 6. Post- harvest. 7. Irrigation 8. Credit. 9. Seed 10. Other(specify) Direct farmers organizations					7.		
Funding Sources (funding Agencies)	USAID							
Project duration (dd/mm/yy)	sept-2011 – November -2016							
Goal and objectives		ssist in the c ns to stabilize			ction of key	internal infras	structure and	l market
	<u>Objectives</u> :	<u> </u>						
	increase	agricultural	productivity	and profitab	ility and imp	rove human	nutrition;	
	Stimulate	e private ent	erprise grow	th and inves	tment; and			
				erial human r objectives on		sustain and	expand	
Target beneficiaries	Direct: rura	ıl small holde	er famers an	d youth enga	aged in agri	culture		
	Indirect: ru	ral communi	ties and con	suming popu	ulation			

Project Component(Value chain development						
activities)	Survey potential sub-sectors						
	Performance a value chain competitiveness analysis						
	Develop strategy for upgrading selected value chains						
	Enabling policy environment for private sector growth						
	Access to credit and business development						
	Develop existing vocational centers into centers of excellence						
	Enterprise service centers						
Expected Results	Value chain development						
(outputs)	Strategy for four value chains identified and supported						
	Value chain coordination committee under MOA's Liberia Agricultural Sector investment Program (LASIP) established.						
	Enabling policy environment for private sector growth						
	Training modules and training plans developed and implemented for public and private sector institutions in the subject area of policy development and planning.						
	Financial management systems improved.						
	Policy milestone matrix for each FED value chain developed and implemented for entrepreneurs.						
	Capacity of microfinance institutions to link clients to larger SMEs and markets supported.						
	Non-bank financial services (e.g. community-based saving associations) promoted and strengthened through technical assistance.						
	Develop existing vocational centers into centers of excellence						
	An environment conducive to learning and to the pursuit of excellence in agriculture and/or engineering established.						
	Five enterprise service centers established.						
Inputs	Improved varieties of subject value chain crops (e.g. rice, cassava, vegetables, etc.), mini agro machines' and processors, Various training modules and materials, logistical support (e.g. computers), etc.						
Implementing agencies	DAI						
Status of project	Pipeline 2.approved 3. Ongoing 4. Completed						

Issues and
problems

Difficulty in accessing some project areas due mainly to poor road conditions, limited capacity of the counterpart ministry (MOA), farmers lack of or limited knowledge regarding development. For example, farmers are still opting for free input distribution, limited involvement of the private sector in the smallholder agricultural sector, among others.

Agriculture S	Agriculture Sector Rehabilitation Project (ASRP)								
Grand Bassa,	Montserrado, Bo	omi, Grand Cap	e Mount, Gra	ınd. Gedeh, Ri	ver Gee, M	aryland, Grand	l. Kru		
1. Grant									
1. Grant 2. Lo	an, 3. Technical	Coop./Assistan	ce, 4. Nationa	al budget, 5. P	rivate secto	r			
3. Extension & Training	4. Production	5. Marketing	6. Post- harvest	7	9				
	1. Policy, 2. R & D, 3. Extension & Training, 4. Production, 5. Marketing 6. Post-harvest, 7. Irrigation, 8. Credit, 9. Seed, 10. Other (specify below)				-				
A(DD JEAD (
AfDB, IFAD, (30L								
USD 24 millio	n								
Start:	April 2010								
End:	March 2016								
Goal:	To contribute to	o food security a	and poverty re	eduction					
Obj.:	1. Increase inc	ome for smallho	olders and rur	al entrepreneu	rs on a sus	tained basis			

Direct:	Smallholder rice farmers
Sec.:	Consumers
1.	Agriculture infrastructure rehabilitation
2.	On-farm technology development
3.	On-farm technology dissemination
4.	Increasing access to market
5.	Irrigation/water management

6.	Farmers' organization development
7.	Seed value chain development
1.	Increased productivity of rice by 200%
2.	Increased rice production
3.	Increased area under rice cultivation
4.	Increased availability of feeder roads
5.	
1.	Inputs: Improved seeds, Fertilizers
2.	Agro-machines
3.	
4.	
5.	
Ministry of Agr	riculture
3. Ongoing	1. Pipeline, 2. Approved, 3. Ongoing, 4. Completed
Inadequate ex	tension staff, Land tenure system, Ownership of the project, Relief vs development, Mindset of beneficiaries

1. Country	Liberia
2. Title (Full name)	Food Security through Commercialization of Agriculture (FSCA) Project
3. Project Location	Montserrado, Grand Kru, Maryland, Nimba
4. Type of project	3 1. Grant, 2. Loan, 3. Technical Coop./Assistance, 4. National budget, 5. Private sector
5. Field of support	1. Policy, 2. R & D, 3. Extension & Training, 4. Production, 5. Marketing 6. Post-harvest, 7. Irrigation, 8. Credit, 9. Seed, 10. Other (specify below)
6. Fund sources (Funding agency)	Italian Govt. through FAO
7. Budget	2.4 million USD
8. Project duration	Start: Jan 2009
(dd/mm/yy)	End: Dec 2011 with no cost extension until March 2012
9. Goal and objectives	Goal: Rural poverty and household food insecurity reduction on a sustainable basis
	Obj.: Increased agricultural productivity, marketed output and incomes of beneficiary FBOs resulting in improved livelihood and food security of FBOs members
10. Target beneficiaries	Direct: Fish artisans, Rice farmers
	Sec.: Fishing communities

_	
11. Project component (activities)	Strengthening of farmer-based organizations
(aon mao)	2. Capacity building: in production, value addition and marketing
	3. Value Chain Development: through strengthening of linkages
	4. Project coordination: Monitoring and evaluation
	5.
	6.
	7.
12. Expected results (outputs)	Rice, cassava and vegetable production and fish processing improved
(outputs)	2.
	3.
	4.
	5.
13. Inputs	Small hand tools (storage, dryers, tools, nets)
	2.
	3.
	4.
	5.
14. Implementing	MoA and FAO
agency	WIDA and FAO
15. Status of the project	4 1. Pipeline, 2. Approved, 3. Ongoing, 4. Completed
16. Issues/problems	

1. Country	Liberia											
2. Title (Full name)	West At	ca Agricultural Productivity Project (WAAPP1-C)										
3. Project Location	Grand G	deh, River Gee, Bomi, Maryland, Margibi, Sinoe, Gb	arpolu									
4. Type of project	2	Loan										
	1. Grant	Grant 2. Loan, 3. Technical Coop./Assistance, 4. National budget, 5. Private sector										
5. Field of support	4	6 7 9										
	1. Policy	2. R & D, 3. Extension & Training, 4. Production, 5. I	Marketing	1	ı							
	6. Post-	rvest, 7. Irrigation, 8. Credit, 9. Seed, 10. Other (sp	ecify belo	OW)							
6. Fund sources	World B	k and JICA										
(Funding agency)												
7. Budget	12 millio	USD										
8. Project duration	Start:	uly 2012										
(dd/mm/yy)	End:	December 2017										
9. Goal and objectives	Goal:	o enhance food security, reduce importation of rice mallholder rice producers	and incre	ease inco	mes of							
	Obj.:	o generate and accelerate the adoption of improved iberia including rice	d technolo	ogies in p	riority cro	ps of						
10. Target	Direct:	smallholder rice farmers										
	j											

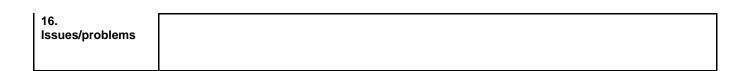
beneficiaries	Sec.:	Rural communities, Consumers
11. Project component (activities)	1.	Enabling Conditions for sub-regional cooperation: in technology generation, dissemination and adoption
	2.	Capacity Building: Strengthening of National Centers of specialization
	3.	Support: to demand-driven technology generation, dissemination and adoption
	4.	Project Coordination: management, monitoring and evaluation
	5.	
	6.	
	7.	
12. Expected results (outputs)	1.	West Africa market integration
(outputs)	2.	Enhancement of research and dissemination of rice technologies
	3.	
	4.	
	5.	
13. Inputs	1.	Inputs: Fertilizers, improved varieties of rice
	2.	Agro machines and processors
	3.	
	4.	
	5.	
14. Implementing agency	MoA	
15. Status of the project	2	1. Pipeline, 2. Approved, 3. Ongoing, 4. Completed
16. Issues/problems		

1. Country	Liberia
2. Title (Full name)	Smallholder Agricultural Productivity Enhancement and Commercialization (SAPEC) Project
3. Project Location	Grand Kru, Maryland, Grand Gedeh, River Gee, Sinoe, River Cess, Grd Cape Mount, Bomi, Montserrado, Grd Bassa, Margibi, Gbarpolu,
4. Type of project	Grant 2. Loan, 3. Technical Coop./Assistance, 4. National budget, 5. Private sector
5. Field of support	1 2 3 4 5 6 10. Farmers' organization
	Policy 2. R & D 3. Extension & Training 4. Production, 5. Marketing Restriction, 8. Credit 9. Seed 10. Other (specify below)
6. Fund sources (Funding agency)	GAFS (Global Agriculture and Food Security), AfDB, GoL
7. Budget	46.5 million USD
8. Project duration	Start: July 2012
(dd/mm/yy)	End: Dec 2018
9. Goal and objectives	Goal: To reduce rural poverty and household food insecurity
	Obj.: 1. To increase the income of smallholder farmers and rural entrepreneurs including women, youth and physically challenged through intensification of crop production, value addition and marketing development

10. Target beneficiaries	Direct:	Smallholder farmers, rural entrepreneurs
belleficiaries	Sec.:	Consumers
11. Project component (activities)	1.	Sustainable Crop Production and intensification: Agricultural Land rehabilitation and development, Dissemination of technologies
(donvince)	2.	Value addition and marketing
	3.	Capacity building: Institutional strengthening
	4.	Project Management
	5.	
	6.	
	7.	
12. Expected results (outputs)	1.	Household income increased
results (outputs)	2.	
	3.	
	4.	
	5.	
13. Inputs	1.	Land, seeds, vehicles, infrastructure, equipments
	2.	
	3.	
	4.	
	5.	
14. Implementing agency	MoA	
15. Status of the project	3. Ongoing	Pipeline 2. Approved, 3. Ongoing 4. Completed
16. Issues/problems	Weak capa	acity, land tenure

1. Country	Liberia										
2. Title (Full name)	Agricultu	ure and Infr	astructui	re Devel	opment	Project	(AIDF	P)			
3. Project Location	Bong and	d Lofa Count	ies								
4. Type of project	1. Grant,	2. Loan, 3.	Technica	al Coop./	Assistan	ce, 4. N	ationa	l budget, 5. Priva	te sector		
5. Field of support	1	2	3	4	5	6	9	10: Infrastructure			
6. Fund sources	6. Post-h	2. R & D 3. I arvest, 7. Irr	igation, 8	. Credit,				arketing pecify below)		
(Funding agency)											
7. Budget	5 million	USD									
8. Project duration	Start:	July 2008									
(dd/mm/yy)	End:	Oct 2013									
9. Goal and objectives	Goal:	Rehabilita economy	tion of Lil	oeria's ra	vaged ir	nfrastruc	ture to	augment the rec	overy of the	he agric	ultural
	Obj.:	Maximize	the econ	omic imp	act of im	proved	transp	ort infrastructure	by simulta	aneously	У

		strengthening agricultural production and marketing in areas benefiting from the rehabilitation of rural roads
10. Target beneficiaries	Direct:	Rice farmers; farmer organizations, private sector
	Sec.:	Community residents
11. Project component (activities)	1.	Policy Formulation: support the rebuilding of a policy formulation and monitoring capacity in the MoA, at national and County level
	2.	Capacity Building: Strengthening the agriculture value chains through support for Farmer Based Organizations (FBOs)
	3.	Seed Multiplication: Support the production and marketing of rice seed on a sustainable, commercial basis
	4.	
	5.	
	6.	
	7.	
12. Expected	1.	Increase of 50% in rice yields
results (outputs)	2.	Increased area under cultivation of rice varieties
	3.	Increase in range of cassava products and cassava-based enterprises through adoption of new processing technologies
	4.	Increased market throughput in a selection of markets
	5.	
13. Inputs	1.	Human capacity
	2.	Feeder roads
	3.	
	4.	
	5.	
14. Implementing agency	MoA, Minis	stry of Public Works, Ministry of Finance
15. Status of the project	3. Ongoing	1. Pipeline, 2. Approved, 3. Ongoing, 4. Completed



The NRDS taskforce members were aware of the expectations of the workshop through the video conferencing that was organized by the CARD secretariat. Most of the Liberia's NRDS task force members participated in the workshop. The local development partners such as USAID and CRS also attended most of the sessions and contributed to the discussions and outputs of the workshop. As a result the task force was able to collect the project documents, although there was still some need left in identifying some rice related programs and projects in the country. The task force prepared the profiles of 6 major rice related projects in the country. These profiles are shown in Annex 1.

With the help of a representative from Ministry of Trade and Commerce, the task force was able to obtain information on the volumes of rice imports into the country. Data on area under rice cultivation, production and average yield were obtained from the crop production survey reports of Ministry of Agriculture. Data for the years 1990, 2000, 2002, and 2004 were obtained from the draft document of Liberia's National Rice Development Strategy and Value chain analyses by USAID¹.

Table 1: Statistics on rice production, consumption and trade in Liberia

		Year											
	1990	2000	2002	2004	′05-06	'06-07	′07-08	'08-09	′09-10	'10-11			
Area (Ha)	175,000	143,000	120,000	120,000	110,000	152,000	190,000	222,670	247,580	251,230			
Average Yield (t/Ha)	1.03	1.28	0.92	0.92	0.87	0.90	0.90	1.25	1.18	1.18			
Production (t)	180,000	183,000	110,000	110,000	100,000	144,000	170,000	279,000	293,000	296,090			
Consumption (t)	n/a	n/a	n/a	300,000	310,000	320,000	332,000	422,000	445,500	465,276			
Food Assistance (t)	n/a	n/a	n/a	100,000	74,000	22,000	20,000	20,000	n/a	n/a			
Import (t)	70,000	100,000	100,000	120,000	160,000	154,000	140,000	140,000	101,359	82,973			
Value (US\$ million)	25	37	20	22	140	170	200	200	65.7	47.3			

Subsector Intervention Element Matrix (SIEM)

Since Liberia's NRDS is still in stage, no previous effort has ever been made to dissect the various interventional needs of the subsectors under rice value chain. Hence the task force members had no prior experience of working with SIEM. However the task force members did not have much difficulty in understanding the framework of the matrix. The participants

¹ USAID (August 2009) Global Food Security Response Liberia Rice Study, microREPORT #157

at the workshop were able to comprehend the purpose and the value of such matrix. They did not find any difficulty in filling the various cells of the matrix. Although it took more than one session for the participants to fill the matrix, there was no time constraint as the participants were able to save time in other sessions.

Needs SIEM

The needs of Liberia's rice value chain are described in the Needs SIEM shown in Annex 2. The participants at the workshop first discussed the various strategic elements described in the draft version of the LNRDS. Based on these discussions, the participants were able to describe the pressing needs of each subsector under various categories of interventions. In almost all the subsectors, policy issues were discussed in depth. This has prompted the participants to include overall policy tools as one of the key subsector for rice development in the country. Thus the 'Needs SIEM' represents the current demands of the rice sector.

6. Gap and priorities for the next funding opportunities

Having listed the needs of the rice sector and the profiles of various rice related programs and projects, the task force members were able to understand the nature of resource matching exercise. Through discussion, the participants identified the components of the rice projects that match the cells of subsector intervention element matrix. Through consensus the identified project components were mapped on to the SIEM. This represents the currently available 'resources' for the rice value chain. The mapping of project profiles done by the participants is shown below:

Table 2: SIEM showing the components of the various rice related projects in Liberia

	Policy / Institutional	Infrastructure	Human resources capacity	Provision / Support	Information / Knowledge
Seed	Lib-1(6), Lib-5(1)	Lib-4(1)	Lib-1(6), Lib-3(2), Lib-4(3), Lib-5(2)	Lib-4(1), Lib-5(3)	Lib-3(1), Lib-3(3), Lib-6(1)
Fertilizer			Lib-3(2)		Lib-6(1)
Irrigation / Water management	Lib-5(1)	Lib-1(1), Lib-4(1)	Lib-3(2)		Lib-6(1)
On farm technology dissemination	Lib-1(5)		Lib-1(5), Lib-3(2), Lib-4(3), Lib-6(3)	Lib-1(3), Lib-3(1), Lib-4(1), Lib-5(3)	Lib-1(2), Lib-3(3), Lib-6(1)
Mechanization			Lib-4(3), Lib-6(3)	Lib-1(3), Lib-4(1), Lib-6(3)	Lib-3(1), Lib-6(1)
Quality improvement			Lib-3(2)	Lib-3(1)	Lib-6(1)
Access to market		Lib-1(4), Lib-3(1), Lib-4(2)	Lib-4(2)		Lib-4(2), Lib-6(1)
Access to Finance	Lib-6(2)		Lib-4(3), Lib-6(2)		Lib-6(1)
Overall policy tools	Lib-5(1), Lib-6(1), Lib-6(2)				Lib-6(1), Lib-6(2)

By matching the available resources with the needs of rice value chain, the participants were able to identify the gaps. Despite the availability of projects/programs under the various cells of SIEM, the participants were able to rate the degree of sufficiency of these projects in addressing the demands of the rice sector. To differentiate the extent of adequacy, the participants colored those cells that have adequate resources in blue (table 3). The cells that are not sufficiently addressed by the existing projects (and therefore need additional projects) are shown in yellow. The gaps represent those cells that are not directly addressed by any on-going/pipeline projects.

Table 3: Analyses of gaps between the needs and available resources in Liberia's rice sector

	Policy / Institutional	Infrastructure	Human resources capacity	Provision / Support	Information / Knowledge
Seed	Lib-1(6), Lib-5(1)	Lib-4(1)	Lib-1(6), Lib-3(2), Lib-4(3), Lib-5(2)	Lib-4(1), Lib-5(3)	Lib-3(1), Lib-3(3), Lib-6(1)
Fertilizer			Lib-3(2)		Lib-6(1)
Irrigation / Water management	Lib-5(1)	Lib-1(1), Lib-4(1)	Lib-3(2)		Lib-6(1)
On farm technology dissemination (E)	Lib-1(5)		Lib-1(5), Lib-3(2), Lib-4(3), Lib-6(3)	Lib-1(3), Lib-3(1), Lib-4(1), Lib-5(3)	Lib-1(2), Lib-3(3), Lib-6(1)
Mechanization			Lib-4(3), Lib-6(3)	Lib-1(3), Lib-4(1), Lib-6(3)	Lib-3(1), Lib-6(1)
Quality improvement			Lib-3(2)	Lib-3(1)	Lib-6(1)
Access to market		Lib-1(4), Lib-3(1), Lib-4(2)	Lib-4(2)		Lib-4(2), Lib-6(1)
Access to Finance	Lib-6(2)		Lib-4(3), Lib-6(2)		Lib-6(1)
Overall policy tools	Lib-5(1), Lib-6(1), Lib-6(2)				Lib-6(1), Lib-6(2)

The participants were able to acknowledge the importance of the outputs of the gaps in the SIEM. Given a large number of gaps in the sector, it is important to prioritize those intervention elements that require immediate attention from the stakeholders through their next budget cycle. While asked to rate the importance of these needs, the participants picked the area of their personal interests along the value chain. Being influenced (biased) by their expertise, the task force was not able to reach a consensus on the priorities. Hence a scoring method was used to identify the importance of the gaps. The scoring involved 'pair-wise' comparison of subsectors in which the participants have to choose only one of the two given subsectors as a priority. Through a reiterative process, all the subsectors were paired and scored. A total of 15 participants were engaged in the scoring and prioritization of gaps in rice sector. The cumulative scores of each subsector were then ranked to reveal the priorities (table 4).

Table 4: Prioritization of sub sectors of rice value chain in Liberia

Subsector	Seeds	Fertilizers/ Chemicals	Irrigation/ Water Mgt	On-farm tech disseminati on (E)	Mechani zation	Quality	Access to Mkt	Access to Credit	Overall Policy tools	Score	Rank
Seeds		14	13	11	11	10	14	8	8	89	1
Fertilizers/ Chemicals	1		i	4	3	4	6	3	6	28	8
Irrigation/ WaterMgt	2	14		10	12	10	10	8	ģ	75	2
On-farm tech dissemination (E)	4	11	4		12	8	7	8	8	62	3a
Mechanizatio n	4	12	3	3		9	7	6	8	52	6
Quality	4	11	5	7	6		12	7	6	58	5
Access to Mkt	1	9	5	8	7	3		11	7	51	7
Access to Credit	7	12	7	7	9	8	4		8	62	3b
Overall Policy tools	7	9	6	6	7	9	8	7		59	4

Due to the need for an intensive discussion and voting procedures, the task force took more than one session to complete the exercise. The extra time taken for the prioritization was however did not affect the outcome of the planned activities of the rest of the sessions. The task force had chosen the six top ranking subsectors from which a total of eight cells were selected as priorities. These prioritized cells are shown in red color in the SIEM (table 5).

Table 5: Priorities of Liberia's rice sector (cells shown in red)

	Policy / Institutional	Infrastructure	Human resources capacity	Provision / Support	Information / Knowledge
Seed	Lib-1(6), Lib-5(1)	its-4(1)	Lib-1(6), Lib-3(2), Lib-4(3), Lib-5(2)	Lib-4(1), Lib-5(3)	Lib-3(1), Lib-3(3)
Fertilizer			Lib-3(2)		
Irrigation / Water management	Lib-5(1)	Lib-1(1), Lib-4(1)	Lib-3(2)		
On farm technology dissemination (E)	Lib-1(5)		Lib-1(5), Lib-3(2), Lib-4(3)	Lib-1(3), Lib-3(1), Lib-4(1), Lib-5(3)	Lib-1(2), Lib-3(3)
Mechanization			Lib-4(3)	Lib-1(3), Lib-4(1)	Lib-3(1)
Quality improvement			Lib-3(2)	Lib-3(1)	
Access to market		Lib-1(4), Lib-3(1), Lib-4(2)	Lib-4(2)		Lib-4(2)
Access to Finance			Lib-4(3)		
Overall policy tools	Lib-5(1)				

From each of the prioritized cell, the task force members were asked to select a maximum of two intervention topics each. After revising the demands described in the Needs SIEM, the participants found a need for consolidation of objectives into one intervention topic (instead of two) for interventions in seed (infrastructure), on-farm technology dissemination (human resource capacity), quality improvement (infrastructure), and overall capacity tools (human resource capacity). Whereas for interventions in irrigation/water management (infrastructure and human resource capacity), and access to finance (policy/institutional support), two intervention topics each were developed. Hence a total of 12 intervention topics were identified as immediate priorities that require attention from the stakeholders through the next budget cycle. These topics are shown in table 6.

Table 6: Intervention topics that require immediate attention of stakeholders in Liberia

CI	Intervention Tonic	Intervention	Cubcoctor	
SI. No	Intervention Topic	Element	Subsector	
1.	Enabling infrastructure for vice verietal improvement cood	Infrastructure	Seed	
1.	Enabling infrastructure for rice varietal improvement, seed multiplication and seed distribution in Liberia	iiiiastiucture	Seeu	
2.	Building capacity of purity, multiplication and production of	Human resource		
۷.	rice seeds through training of farmers, farmer/community	capacity		
	based organizations and private seed producers	capacity		
3.	Strengthening the technical and human capacities in			
J.	research, production and multiplication of seed rice			
4.	Rehabilitation of existing irrigation facilities in lowland rice	Infrastructure	Irrigation/	
7.	production areas	iiii asti ucture	Water	
	Expansion of area under rice cultivation in Liberia by		Management	
	constructing new irrigation structures in lowlands			
6.	Increasing rice productivity through training of farmers and	Human Resource		
	local administration authorities on integrated water	Capacity		
	management/conservation and water use techniques	• •		
7.	Strengthening human capacity in water resource			
	management in lowland rice producing areas in Liberia			
8.	Enabling dissemination of on-farm technologies of rice	Human Resource	On-farm	
	production and processing by strengthening the human	Capacity	technology	
	capacity of advisory services in Liberia		dissemination	
9.	Enhancing the infrastructure capacity in post harvest	Infrastructure	Quality	
	handling, processing and value addition of rice in Liberia		Improvement	
10.	Enabling environment for rural agricultural financial services	Policy/	Access to	
	to improve access to finance for farmers, farmer based	Institutional	Finance	
	organizations, processors, agro-dealers, traders along the	Support		
	rice value chain			
11.	Improved implementation and compliance of rural finance			
	schemes and access by cooperative development agency			
12	(rice)	Human Dagauras	Overall policy	
12.	Capacity building of institutional support and policy formulations for increased efficiency of rice value chain	Human Resource	Overall policy tools	
	iorinidiations for increased efficiency of rice value chain	Capacity	เบบเร	

7. Exchange with the CAADP country team/government investment framework

Liberia's CAADP process was explained to the participants by Mr. Harry G. Wonyene of Ministry of Agriculture. Liberia has fully embraced the process of CAADP as a consensual framework for agricultural growth, poverty reduction and nutrition security. A formal

launching of the process took place in February 2008. Stakeholders were identified; sector team and national consultant were selected to perform stocktaking and analytical work in March 2008. Programs were identified, validated and prioritized in April 2009. Detailed design of investment programs and peer review was held in May 2009. After validating the investment programs in July 2009, the CAADP Compact was signed in March 2010. This led to the development of a comprehensive 'Liberia Agriculture Sector Investment Program (LASIP)'.

LASIP is the conceptual equivalent of CAADP in the country. LASIP has drawn 4 major programs aligning with the CAADP pillars. Each program contains 6 sub programs under program 1 (Food and nutrition security), 4 sub programs under program 2 (Competitive value chains and market linkages), 6 sub programs under program 3 (Institutional development), and 4 sub programs under program 4 (Land and water development). The task force members aligned the strategic components and the sub-components of LNRDS to the various sub programs of LASIP. The alignments are shown in Annex 3.

8. Meeting with stakeholders

The meeting with full members and stakeholders was organized by the task force on 30 April 2012. About 40 participants attended the meeting (Annex 5). Mr. Michael Totoe, the chair for Rice Sector Technical Working Group (RSTWG) began the proceedings by insisting that the role of RSTWG should be clearly stated in the LNRDS. Mr. Harry Woyene presented the latest version of LNRDS to the participants. The discussions on LNRDS were mediated by Dr. S. Subah, the Deputy Minister of Agriculture. The participants discussed on the modalities of expanding rice cultivation in to lowlands.

Following the presentations, the participants were asked to develop activities for each of the sub component of the strategic elements/axes of LNRDS. The participants divided into 6 groups (one group for each of the 6 strategic axes) and listed the potential activities that need to be carried out under LNRDS. One representative from each group then presented the outputs and discussed with the rest of the participants. These activities will be captured in the final version of LNRDS, before submitting for cabinet approval.

9. Consolidation

The participants and stakeholders felt content with the progresses made during the working week 1. The participants agreed that the following actions require to be attended;

- The draft version of the LNRDS will have to be finalized through consultations (by mid-May)
- The finalized version of LNRDS will be forwarded to the Cabinet for approval by the end of May
- Enlist the full team and/or reconstitute the Rice Sector Technical Working Group (RSTWG) to form the task force for reviewing and implementation of the LNRDS (by mid-May)

- In-house consultation of intervention topics and development of concepts by the RSTWG, through discussions with Catholic Relief Services, private sector and other NGOs and stakeholders (May-June)
- Consultations on concepts with donors at the monthly Agriculture Sector Working Group Meeting in June
- Organization of second working week (WW2) tentatively during June 25-29.
 Tentatively the participants agreed to have it arranged between the last week of June and last week of July

The Government's Policy on Agriculture Mechanization

Strategic Component.6: Mechanization

One of the major limitation of increasing rice productivity in Liberia is the over reliance on human, often women labor. Increase in labor productivity shall not only increase the overall productivity, but also expansion of lowland area under rice. Experience from Asia, Latin America and in some African countries show that labor productivity shall be greatly enhanced by using alternate farm powers such as motorized engines and draught animals.

Mechanization, along with other farm inputs such as fertilizers, improved seeds and pesticides, can improve agricultural productivity and overall production. Thus mechanization is a powerful tool in achieving sustainable rice production because it enhances human capacity with the potential users or beneficiaries being men, women and children. It allows timeliness, efficiency and consistency in field operations. This is critical for land preparation in both uplands and lowlands where there is scope for sequential rotation of rice and other food crops. It can also relieve the growing seasonal labor constraints that are experienced by farmers in several parts of the country.

Mechanization will be promoted under the proposed strategies through the following subcomponents.

Subcomponent.6.1. Mechanization Options

Owning machineries involve several variable and fixed costs depending on the nature of machines. While all smallholder farmers may not be able to own the machineries, rural entrepreneurs who can invest in mechanization shall embark on providing services. It is therefore important to lay emphasis on validation of the various mechanization options and the economic feasibility. Under this subcomponent efforts will be taken to;

- Perform cost-benefit analyses of mechanization in smallholder rice farms
- Assess the feasibility and economic profitability of using draft animals farm operations and livelihoods in uplands, lowlands
- Develop appropriate machinery options for the uplands, lowlands
- Conduct technical, socio-economic and environmental feasibilities of the mechanization options

• Establish the use of treadle pump for irrigation in rice fields Subcomponent.6.2. Human resources

Sustainability of mechanization in smallholder rice farms will depend on the availability of human resources along the value chain – from mechanics and artisans at the grass root level to design engineers at the technical level. The following activities will be undertaken under this subcomponent;

- Training of farm groups, rural entrepreneurs (service providers), extension agents, local artisans, and mechanics
- Training of trainers for representatives of local farmers
- On-job training for engineers and extension officers
- Recruitment of engineers and extension officers

Subcomponent.6.3. Policy tools

The participation of private sector is essential for the promotion of mechanization in the country. Policy tools that will improve the cost efficiency of business operations such as dealerships, importation of machineries and implements, local manufacturing, training of mechanics, service provision and extension services will provide the enabling environment for private sector. This subcomponent will aim to;

- Encourage public-private partnerships in logistics and importation of machineries and implements
- Waive import tariffs, VAT and other hidden taxes/duties on importation of farm machineries
- Oversee regulations on technical and extension services
- Develop and recommend appropriate finance mechanisms/guarantee schemes for the stakeholders in the value chain for mechanization
- Create awareness and knowledge on the advantages of mechanization in high production areas

Subcomponent.6.4. Research and development

The designs of such machineries and implements imported from overseas often need to be fine-tuned to improve the adoption in local environments. Furthermore, there may be instances where a special design of already existing machineries and/or implements will become necessary to improve the operational- and cost efficiency of machineries. This subcomponent will aim to:

- Conduct adaptive trials on appropriate tools
- Promote national, regional and international collaboration on research and designing of locally available/suitable tools
- Introduce parboiling and other appropriate value addition in rice processing

Subcomponent.6.5. Testing and standardization

When private sector is engaged in promotion of mechanization, inevitably the sector will introduce machineries and implements from overseas manufacturers into the country. The quality and standards of these machineries and implements may not be universally suited. For instance, the soil conditions in which rice is grown may demand varying degrees of strength of metal. Hence local testing, standardization and authorization of machineries and implements will improve the longevity and hence the profitability of machineries in smallholder farms. This subcomponent will aim to:

- Establish quality standards of machineries and implements being sold in the country
- Identify institutions and assign responsibilities of testing and standardization procedures along the value chain
- Perform testing of mechanization options in farmers fields
- Conduct testing of imported machineries and implements

Subcomponent.6.6. Promotional Activities

Mechanization shall be adopted more readily by smallholder farmers if the appropriateness of technologies is thoroughly evaluated and profitability becomes visible. Several Asian countries where mechanization has been successfully adopted by smallholder farmers continue to embark on promoting mechanization amongst the stakeholders along the value chain. This subcomponent will aim to:

- Aggressive awareness campaign amongst farmer on new technology
- Organize routine workshops, radio programs, brochures (flyers/ posters) and other multimedia tools for dissemination of mechanization, markets and prices
- Public-private partnerships in mechanical services, extension services, financial services, demonstrations and standardization

(1) Duties of your organization with reference to the implementation of NRDS

- Political buy-in (Lobbying)
- Donors Development of related Projects
- > Finalization of the concept paper
- Report the results to the CARD Secretariat.
- Propose the future format of the NRDS implementation

(2) Duties of your department with reference to the implementation of NRDS

- Agreeing on the date of the second working week
- > Identification of the Task force full members for the NRDS implementation
- Preparing the Concept Notes How to endorse rice-related interventions.
- How to integrate them into the process of the CAADP/government investment framework (MTEF / annual budget.
- Understanding of CAADP implementation through LASIP and budget processes.
- Consolidate all items and identify follow-up actions with CARD.

➤ Identified the 'priorities' of rice sector for concept paper development. NRDS taskforce/CARD approaches the recommended donors for intervention topics (projects)' for rice sector in the NRDS

(3) How you have been involved in the implementation of NRDS

- ➤ Participated in what is called 'Working Week Part 1 (WW1) wherein the gap analysis was conducted and priority intervention areas identified.
- > Identified 'priorities' of rice sector for Concept Paper development.
- NRDS taskforce/CARD approaches the recommended donors for intervention topics (projects)' for rice sector in the NRDS
- > Consolidated all items and identified follow-up actions with CARD.

Please list all the CARD/NRDS events you have participated since January 2009, for example, a)CARD General Meetings, b) Regional Workshop of NRDS Formulation, c) training visit to Nairobi, d) participation to the CARD Working Week as a core / full member of the NRDS Task Force, or e) other meetings on consultation / validation and launching of NRDS.

- ➤ Participated in the drafting of the drafted LNRDS version aims to achieve self sufficiency in rice production by raising the productivity levels and by expanding the area under rice cultivation into lowlands by 2018.
- > To enable these strategies, I participated in the CARD recently conducted a working week (WW1) during 23-27 April, 2012 at the premises of Ministry of Agriculture in Monrovia. The objective of this working week was to map the needs, resources, demands and gaps in rice value chain, and to prioritize the intervention topics that require immediate attention from the stakeholders.
- As one of the participants, we were able to comprehensively describe the needs of various interventions for the subsectors along the rice value chain in a Subsector Intervention Element Matrix (SIEM) format.
- ➤ Identified six (6) rice related projects that are currently on-going in Liberia.
- As participants, mapped the components of these projects onto the SIEM and thus generated Resources-SIEM. By aligning the Needs-SIEM with Resources-SIEM, the participants were then able to identify the gaps and assess the degree of sufficiency of the current interventions.
- > Through a pair-wise scoring of subsectors, the taskforce prioritized eight subsector-intervention element cells and interventions that require immediate attention from the stakeholders through the next financial planning. From these cells, a total of 12 intervention themes were developed by the participants.
- > The taskforce elaborated the above mentioned outputs at a full member meeting with stakeholders on 30 April 2012.
- About 40 participants, including some key officials from the Ministry of Agriculture and a few development partners, attended the discussions.
- > The taskforce used the meeting to also validate the strategic components and develop activities under the LNRDS.

Challenges regarding CARD or NRDS process

(1) Challenges as a focal point/ a taskforce member regarding the implementation of NRDS process(e.g. institutional, capacity)

- Going forward, the taskforce plans to seek the approval of LNRDS by the Cabinet.
- ➤ Actualization of Working Week 2 activities
- > Resources mobilization and logistical requirement for movement and establishment of implementation guard lines and procedures
- > The consistency of members adherence and commitment to the process
- > The institutional support required

(2) Your tentative idea how you can deal with the above-mentioned challenges

- Constant engagement of the Cabinet through the appropriate authorities at the Ministry of Agriculture, Liberia
- Propose fast-tracking of the Working Week 2 activities by engaging CARD through IICA for the coming in of the Consultant already identified
- Government support to the NRDS process

Tentative ideas on how to deal with this

With the training under program dialogue and Rice Development Strategy will better prepare us to implement the NRDS in Liberia

The CARD and NRDS processes are directly linked to two major program areas in the Liberia Agriculture Sector Investment Plan (LASIP), an output of the CAADP process in Liberia.

In our LASIP document, the first priority program area looks at Food security and the second looks at competitive value chain and market linkages. The Liberia National Rice Development Strategy (LNRDS) is concerned with rice development by strengthening the entire rice chain which has a good linkages with intervention already identified for investment under the LASIP.

Rice is our staple food and strong emphasis is placed on production and productivity for the achievement of a food secured nation. This objective will be realized through the implementation of the NRDS in Liberia. The NRDS is linked to the CAADP process through the task force as a member of the thematic working groups for program areas one and two.

Challenges of CARD or NRDS

To increase rice production, a number of challenges need to be resolved:

 Adaptive research capacities: CARI, the Central Agriculture Research Institute. The human resource based at CARI is weak in the area of rice breeding, agronomy, crop protection and socio-economics.

- Lack of certified seed production system: there is no rice seed chain in Liberia. Certified seed is a prerequisite to a healthy crop establishment.
- Outdated information on economics of rice: Rice production costs and benefits analyses are not regularly updated. There is lack of economic information on rice and other staple foods.
- Lack of credit and micro-finance institutions: Liberia does not have functional credit and micro-finance systems. Farmers are constrained by lack of credit. The Central Bank of Liberia is preparing to launch a micro-finance system aiming at the rural sector.
- Inadequate trained manpower: The available manpower is inadequate. There is a
 high deficit in trained agriculturists, water management and irrigation specialists as
 well as researchers and extension officers.
- Lack of an extension system in all rice growing areas: In the main rice basket areas of Liberia, there is a lack of strong extension system (private and public) that can support the development the rice chain.
- Inadequate infrastructures: In adequate feeder road network, farm machinery, transport systems, irrigation systems, stores and equipment
- Non-Governmental Organizations: NGOs are playing an important role in the provision of agriculture and other social services. The proliferation of NGOs in the agricultural sector is a response to the absence of public extension services in the rural sector during the post conflict period.
- Private Sector: The private sector is weak in the agricultural sector in Liberia. There are few small and medium private sector operators involved in marketing of farm inputs and outputs, and in agricultural processing (including rice). The private sector has been involved mainly in the marketing of imported rice.

Your expectation to the course with reference to the challenges

- 1. To have best practices of other country in adapting new technology in rice production
- 2. Making the rice sector a major sector as it contribution to Gross Domestic Production will save enormous capital on rice importation.
- 3. How is NRDS functioning in other country with similar condition like Liberia?
- 4. Learning the Action Plan of other focal point person of group 2 for which Liberia is member.
- 5. The capacity of Ministry of Agriculture at national, county district levels in monitoring the NRDS in gathering vital data, analyzing and reporting on policy issues in the rice sector.

ORAGNOGRAM OF THE LNRDS

