GHANA

A. LIST OF NEW PROJECTS

| Code | Project | Start | End | | | | |
|-------|--|--------|------|--|--|--|--|
| GH-1 | Food Security and Rice Producers Organization Project | | | | | | |
| GH-2 | Special Programme for Food Security in Ghana | | | | | | |
| GH-3 | Project for Promotion of Farmers' Patricipation in Irrigation Management (FAPIM) | | | | | | |
| GH-4 | The Study on the Promotion of Domestic Rice in the Republic of Ghana | | | | | | |
| GH-5 | Improvement of Drought Tolerance of Rice through Within-Species Gene Transfer | | | | | | |
| GH-6 | NERICA Rice Dissemination Project | | | | | | |
| GH-7 | Inland Valleys Rice Development Project | | | | | | |
| GH-8 | Small Scale Irrigation Development Project | | | | | | |
| GH-9 | Small Farms Irrigation Project | | | | | | |
| GH-10 | Rice Sector Support Project | | | | | | |
| GH-11 | Ghana Rice Inter-professional Body | | | | | | |
| GH-12 | Rice Seed Production | | | | | | |
| GH-13 | Project for Sustainable Development of Rain-fed Lowland Rice Produ | uction | | | | | |
| GH-14 | Development of low-input rice cultivation system in wetland in Africa | | | | | | |
| GH15 | Development of Rice Varieties with Enhanced Nitrogen-Use Efficiency and Salt Tolerance (NUE-EST-AATF) | 2010 | 2015 | | | | |
| GH16 | Improving Yield, Quality and Adaptability of Upland and Rain fed Lowland Rice Varieties in Ghana to Reduce Dependency on Imported Rice (CRI-AGRA) | 2011 | 2014 | | | | |
| GH17 | GCSP/GHA/028/UNO – Dissemination of Improved Rice Production Systems with Emphasis on Nerica to Reduce Food Deficit and Improve Farmers Income in Ghana (UN- FAO/UNIDO-JAPAN GOV'T) | 2004 | 2006 | | | | |
| GH18 | Expanded Rice Programme | 2008 | On | | | | |
| GH19 | Kpong Irrigation Project | | | | | | |
| GH20 | An Emergency Initiative to Boost Rice Production (USAID – SARI) | 2008 | 2010 | | | | |
| GH21 | Improving Organic Matter content of soil for increased yield of NERICA | 2006 | 2011 | | | | |

B. UPDATED SIEM

| GHANA | Policy / institutional | Infrastructure | Human resource capacity | Provision / support | Information / knowledge | Unclassified |
|-------------------------------------|-------------------------------------|---|---|---|---|--------------|
| Seed | GH18-1; GH20-1 | | GH15-1;GH16-2; GH18-1 | GH6-2; GH12 *GH13-2-1;GH15-3,4;GH16-3; GH17-1; GH18-1; GH20-1 | GH5; GH10-7; GH14- 3;GH15-1,2; GH16-1; GH18-1 | |
| Fertilizer | GH18-2; GH20-2 | | | GH6-2: ⁺ <i>GH13-2-1;</i> GH20-2 | GH20-2; GH21-1,2 | |
| Irrigation / water management | | GH2-1; GH7-1; GH8- 4; GH9-4; GH10-1: a <i>GH3-1,2</i> | GH3-3; | | | |
| On-farm technology dissemination | GH4; GH18-3 | | GH2-2,3; GH6-1,3; GH10-3; GH13-3; GH16-2; GH18-3; GH20-3 | GH8-2, GH9-2;GH15-4; GH16- 1,2,3; GH17-1,3; GH18-3 | GH2-2,3; GH4;; GH6-1; GH7-4; GH10-3, 6; GH13- 1-2,3; GH13-3,4; GH14- 1,2,4, ^b GH13-3,d GH-5-1; GH16-2; GH18-3;GH19-1; GH20-2;GH21-1,2 | |
| Mechanization | | | GH17-3; GH18-2 | ^е GH15-2, GH6-2; <mark>GH18-2;</mark> GH19-3 | | |
| Quality improvement | GH4; GH18-6 | fGH7-3; GH18-5,6; GH19-3 | GH6-3; GH10-3; GH16- 2 | fGH7-2,3 | GH4; GH10-3; <mark>GH15-2</mark> | |
| Access to market | GH4; <mark>GH18-5</mark> | GH18-5 | GH11-1 | GH19-3 | GH4; GH11-3; <i>gGH13-2-4;</i> | |
| Access to credit | GH10-4; <mark>GH17-2</mark> | | GH17-2 | GH7-2; GH10-4; GH18-4 ;GH19-2 | | |
| Overall policy tools | GH1-1,2,4; GH4; GH11-2; GH13-2-3 | | GH1-3; GH9-3; GH10- 2; GH10-5; GH11-1; GH19-4 | GH1-5; | GH4; GH13-1-1; | |
| Unclassified | | GH19-5 | GH1-6,7, GH7-3; GH8-3; ^h GH9-3 | GH8-1,5; GH9-1,5; | | |
| Out | GH6-4; GH7-5; GH8-5 | ;GH9-5;GH13-3-1 | | 1 | 1 | 1 |

C. NEEDS SIEM

| | Policy / Institutional | Infrastructure | Human Resource Capacity |
|--------------------------------|------------------------|----------------|-------------------------|
| Seed | | | |
| - breeding | | | |
| - multiplication | | | |
| - distribution | | | |
| Fertilizer | | | |
| - production / importation | | | |
| - distribution | | | |
| Irrigation / water | | ** | |
| Management | | | |
| On-farm technology | | | |
| transfer | | | |
| - Research and extension | | | |
| Mechanization | | | |
| | | | |
| Quality improvement | | ** | |
| - Processing / Storage | | | |
| Access to market | | | |
| - Promotion of local produce / | | | |
| branding | | | |
| Access to credit | | | |
| Overall policy tools | | | |
| Kev | | | |

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| Needs urgent attention | | | |
|------------------------|--|--|--|
| Moderate attention | | | |
| Substantial Progress | | | |

D. SIEM WHICH HIGHLIGHTS THE GAPS

| GHANA | Policy/ institutional | Infrastructure | Human resource capacity | Provision / support | Information knowledge/Research | Unclassified |
|-------------------------------------|--------------------------|----------------|-------------------------|---------------------|-----------------------------------|--------------|
| Seed | RS-1 | RS-1 | RS-1 | | RS-1 | |
| Fertilizer | RS-2 | | RS-2 | | RS-2 | |
| Irrigation / water management | RS-4 | RS-4 | RS-4 | | RS-4 | |
| On-farm technology dissemination | | RS-6 | RS-6 | RS-6 | RS-6 | |
| Mechanization | RS-5 | RS-5 | RS-5 | RS-5 | RS-5 | |
| Quality improvement | | RS-3 | RS-3 | RS-3 | RS-3 | |
| Access to market | | RS-3 | RS-3 | | RS-3 | |
| Access to credit | RS-7 | | RS-7 | | RS-7 | |
| Overall policy tools | RS-7* | | RS-7 | | | |
| Unclassified | | | | | | |
| Out | | • | • | | | |

*Community Mobilization, FBO's and Credit Management, RS-1=Seed System, RS-2=Fertilizer Marketing & Dist, RS-3=Post-Harvest & Marketing, RS-4= Irrigation & Water Control, RS-5=Equipment Access & Maintenance, RS6= R&D, RS7= Community Mobilization, FBO'

E. SIEM WHICH HIGHLIGHTS THE PRIORITY CELLS

| GHANA | Policy / institutional | Infrastructure | Human resource capacity | Provision / support | Information knowledge/Research | Unclassified |
|--|---------------------------|----------------|-------------------------------|------------------------|-----------------------------------|--------------|
| Seed | | | | | | |
| Fertilizer | | | | | | |
| Irrigation / water management | | | | | | |
| On-farm technology dissemination | | | | | | |
| Mechanization | | | | | | |
| Quality improvement | | | | | | |
| Access to market | | | | | | |
| Access to credit | | | | | | |
| Overall policy tools | | | | | | |
| Unclassified | | | | | | |

*Community Mobilization, FBO's and Credit Management, RS-1=Seed System, RS-2=Fertilizer Marketing & Dist, RS-3=Post-Harvest & Marketing, RS-4= Irrigation & Water Control, RS-5=Equipment Access & Maintenance, RS6= R&D, RS7= Community Mobilization, FBO's

F. LIST OF PROJECT TITLES WITH POTENTIAL SOURCE OF FUNDING

HUMAN RESOURCE DEVELOPMENT FOR SEED PRODUCTION AND DISTRIBUTION (Donor/GoG)

 Training of all stakeholders in the industry (5 breeders (3MPhil, 2PhD), 3 seed technologists -MPhil, 30 research technicians, 9 regional seed grower associations, 2,500 extension/development staff, 50 GSID staff, 20 GGLDB staff, 100 input dealers) in seed production, storage and promotion.

INFRASTRUCTURAL DEVELOPMENT TO IMPROVE RICE SEED QUALITY

(Donor/GoG)

- Establish an efficient seed storage system across the rice growing regions and district
- Rehabilitate 3 existing seed cold storage facilities across the country
- Rehabilitate and upgrade 6 existing seed storage facilities
- Construct 3 new rice seed processing and storage facilities

DEVELOPMENT OF LOWLANDS/INLAND VALLEYS WITH WATER CONTROL STRUCTURES FOR RICE CULTIVATION (Donor/GoG)

Design appropriate water control systems in characterized inland valleys and lowlands for enhanced water management for rice cultivation

- Identify suitable characterized valleys/lowlands for development
- Survey environment to determine appropriate water control structures
- Design water control structures
- Negotiate for usufruct and tenancy arrangement for selected valleys/lowlands
- Develop valleys with appropriate water control structures (dykes, bonds, wells etc.
 - Develop 50,000ha (Phase 1) of lowlands and inland valleys

<u>SUPPORT FOR THE DISSEMINATION OF IMPROVED RICE TECHNOLOGIES</u> (Donor/GoG)

- Provision of logistics (equipment for research, extension/development workers) 1000
 -Laboratory equipment
 - -Soil testing equipment
 - Motorbikes
 - Moisture Meters
 - GPS
 - Germination Trays

<u>SUPPORT FOR THE MECHANIZATION OF RICE PRODUCTION</u> (Donor/GoG)

• Facilitate the provision of equipment (tractors -1000, earth moving machines -10, power tillers - 500, planters - 50, reapers - 100 and combine harvesters - 50, threshers -100, land levelers - 50 etc)

ESTABLISHMENT OF MECHANIZATION SERVICE CENTRES

(Donor/GoG)

- Promote the establishment of mechanization service centres and leasing schemes with adequate backup of spare parts
- Strengthen and expand existing mechanization service centres
- Support the establishment of additional 100 mechanization service centres in major rice growing districts

<u>SUPPORT FOR RICE QUALITY IMPROVEMENT</u> (Donor/GoG)

- Provision of appropriate machinery (50 standard mills, 1-2 ton parboiling equipment, packaging equipment) at x additional processing centres
- Provision of other equipment accessories (moisture meters, scales, fork lift, etc).

<u>INFRASTRUCTURAL DEVELOPMENT FOR RICE QUALITY IMPROVEMENT</u> (Donor/GoG)

- Establishment of rice processing centres
- Renovation of existing grain silos
- Provide10 additional storage facilities in the major rice producing and consuming areas