I. Background

The Ebola Virus Disease (EVD) which has ravaged the Mano River Union Sub-region for over a year, brought with it death and untold suffering. By mid-2015, the region had recorded over 25,000 cumulative infection cases and over 10,000 deaths. The disease had a particularly devastating effect on the agricultural sector from which the majority of the rural population earn their livelihood. In addition to the phenomenal number of deaths, certain actions, such as quarantining of communities, banning of agriculture work gangs, closure of weekly periodic markets etc. led to a reduction in agricultural yields resulting not only in widespread hunger and food insecurity but also a reduction in the availability of seeds for the subsequent planting seasons. In the wake of a pending food security crisis, ECOWAS and MRU were alerted through the leadership of the affected countries and recognized the need to mobilize resources to support the revival of agriculture production. The provision of seeds was identified as a priority action which had the potential to salvage the 2015 planting season.

In an unprecedented regional delivery, over 3,500 tons of seeds (benefitting) ... about 264,000 farmers (whom) have received...new varieties of seeds... resistant to stresses and yield at least 3-4 times more than the older Varieties.

Trucks from Burkina Faso enroute to Sierra Leone and Liberia
From the onset of the EVD Outbreak in the Mano River Union (MRU) Sub-region, the MRU Secretariat has been working assiduously together with its partners to curtail the disease and its impact on citizens of the affected MRU Member States. The MRU Secretariat has been involved in the sensitization of and mobilization of border communities, advocacy for a greater commitment to the provision of basic services in these communities and resource mobilization for the containment as well as Post Ebola Support to maintain and contain Ebola at zero and the revitalization of every sector of the economies of the Member States.

Given that the Ebola outbreak is a sub-regional phenomenon, there is a need to adopt sub-regional intervention strategies amongst countries and between partners, to tackle the outbreak. This is why the MRU Secretariat commends the role of ECOWAS, supported by the World Bank and the Japanese Government for using the vehicle of the WAAPP in leveraging through the Member States the technical expertise available at CORAF/ WECARD for providing foundation and certified seeds for persons working in the agricultural sector to return back to their farms and regain their livelihoods.

I am impressed with the mechanisms that have been put in place to ensure that the required seeds reach the end users in a timely manner, as was advised by the Secretariat in an Early Warning Note addressing the issue of recovery agricultural seed support earlier this year. The initiative has proven that regional efforts can yield the desired dividends. Let us all therefore, be encouraged by the initial success of this intervention and remain steadfast in our efforts, so as to increase production and build resilient seed systems in the MRU Sub-region.

Background Cont... In a proactive response to a pending crisis, the World Bank, through the West African Agricultural Productivity Programme (WAAPP) provided funds to procure seeds from neighbouring West African countries in order to provide emergency seed within the region to all countries affected by the epidemic.

CORAF/WECARD coordinated the emergency seed support at the regional level utilizing resources from WAAPP, the USAID funded West Africa Seed Program (WASP) and further technical expertise from AfricaRice.

The emergency seed recovery support to Mano River Member States has a two-fold objective of i. increasing the amount of rice cultivated by the farmers; ii. helping strengthen the countries’ seed system through the additional stock of foundations seeds which will be multiplied, certified and made available for subsequent planting seasons. The intervention is being implemented in three phases i.e.:

**Phase 1:** Mobilization of seeds, fertilizers and pesticides for the coming season;

**Phase 2:** Production in 2015 to complement and support the second season

**Phase 3:** Building resilience of the seeds systems of Liberia, Sierra Leone and Guinea.

Collaboration between country governments, donors and development partners resulted in an unprecedented regional delivery of over 3,500 tons of seeds, distributed to farmers for planting in the current cropping season. About 264,000 farmers (43% women and 55% youth), have received rice, maize and cowpea seeds to cover 110,000 hectares of land with new varieties of seeds which are resistant to stresses and yield at least 3-4 times more than the older varieties used in the three countries. The rapid decision and actions taken for the timely supply
of seeds, provides hope for the future for the governments and the peoples of Liberia, Sierra Leone and Guinea.

2. The Process

A well-coordinated process was put in place at the regional level, in close collaboration with country level operations established in order to ensure that seeds reached targeted beneficiaries. At the onset of the process CORAF/WECARD together with the Member States and the AfricaRice ( CGIAR Centre) conducted the relevant needs assessment, sourced the required seeds, developed procurement plans for the purchase of seeds and fertilizer from eight countries and organized the timely distribution of these seeds and fertilizer.

So as to facilitate the free movement of seed trucks, routes were planned well in advance. ECOWAS authorized border custom services and control to facilitate the smooth movement of the trucks. The movements of the trucks were monitored in real time using an instant messaging system (SMS), e-mails and telephone communication between the CORAF/WECARD, West Africa Seed Program (WASP) Coordinator, WAAPP National Programme Coordination Units, and the relevant authorities of countries either sending and receiving seeds. The communication was particularly robust at the border. For Sierra Leone and Liberia, seeds were sourced from eight countries, based on the ecological similarities of the upland and lowland varieties of seeds purchased. In the case of Guinea, rice seeds were purchased from Cote d’Ivoire, whilst other varieties were sent from areas of surplus production to areas in the country with a production deficit.

In country distribution processes were based on the internal agricultural extension systems. Sierra Leone and Liberia put processes in place initiated at the collection of seeds from their borders to delivery to beneficiary communities. In Sierra Leone seeds were transported to 4 regional hub stores, where they were transferred into district stores for onward to the beneficiary communities through the “block” system instituted by the Ministry of Agriculture, Forestry and Food Security. Seeds were distributed to the farmers after the teams had ascertained the farmers’ readiness to receive these seeds.

In Liberia seeds were transported from the border areas to three locations in Bong County, for onward transmission to each county as per a distribution plan developed by the Ministry of Agriculture. The Ministry utilized the services of NGOs and other development partners to effect the distribution to the farmers. Some individuals in the private sector also received seeds for multiplication. In the case of the Guinean process the WAAPP PCU liaised with FAO for seed distributed.
5. Seed Procurement and Projected Targets

A total of approximately 4,000 tons of seeds have been mobilized regionally and distributed within the Mano River Union Member States. Both foundation and certified seed varieties were procured for upland and lowland. The rice varieties were mainly the Nericas. Nerica 4 was procured by all affected Member States for the upland ecology. Nerica L20 was procured by both Sierra Leone and Liberia for the lowland ecology. Sierra Leone also favored Nerica L19. Guinea procured WITA 9, a lowland rice variety from Cote d’Ivoire. The maize purchased was the same for Sierra Leone and Liberia, whilst there was a variation in the Cowpea seeds procured.

Table 1, indicates that the majority of the certified rice seeds procured by Sierra Leone and Liberia were from Burkina Faso. Liberia made a considerable purchase from Guinea. Togo and AfricaRice provided foundation rice seeds to both Sierra Leone and Liberia, whilst additional foundation seeds were procured for Sierra Leone from Nigeria. Niger was the sole main provider of cowpea seeds, whilst small amounts came from Ghana. Certified maize was provided by Burkina Faso, Senegal Ghana and Nigeria.
Significant benefits are expected from the seed support which will strengthen the seed sector by ensuring the greater availability of improved seed varieties and strengthening the resilience of seed systems. The intervention has been assessed by CORAF/WECARD and the concerned Member States to cover 110,430 hectares of land, produce 289,100 mts of grain and benefit 227,919 farmers in the 2015 cropping season.

Table 2 Benefits from certified seeds.

<table>
<thead>
<tr>
<th>Country</th>
<th>Seeds</th>
<th>Supplying Country – Seeds Amount (mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sierra Leone</td>
<td>Rice (Certified)</td>
<td>Burkina Faso (1000); Nigeria (500); AfricaRice (15)</td>
</tr>
<tr>
<td></td>
<td>Rice (Foundation)</td>
<td>Togo (100); Mali (127); Nigeria (50); AfricaRice (15)</td>
</tr>
<tr>
<td></td>
<td>Maize (Certified)</td>
<td>Burkina Faso (65); Senegal (15); Ghana (1.5); Nigeria (20); Cowpea (Foundation)</td>
</tr>
<tr>
<td>Liberia</td>
<td>Rice (Certified)</td>
<td>Guinea (300); Burkina Faso (360); Mali (48); Nigeria (60); Togo (40); Senegal (1.5); Ghana (1.5); Liberia (570)</td>
</tr>
<tr>
<td></td>
<td>Rice (Foundation)</td>
<td>AfricaRice (15)</td>
</tr>
<tr>
<td></td>
<td>Maize (Certified)</td>
<td>Burkina Faso (10); Mali (79); Nigeria (60); Senegal (15); Ghana (1.5)</td>
</tr>
<tr>
<td></td>
<td>Cowpea Certified</td>
<td>Niger (90)</td>
</tr>
<tr>
<td></td>
<td>Cowpea (Foundation)</td>
<td>Niger (10)</td>
</tr>
<tr>
<td>Guinea</td>
<td>Rice (Certified)</td>
<td>Guinea (2,000)</td>
</tr>
<tr>
<td></td>
<td>Rice (Foundation)</td>
<td>Cote d’Ivoire (60)</td>
</tr>
</tbody>
</table>

Source: Country Reports

The increased production of certified seeds from the cultivation of foundation seeds in 2015 would enable the programme to cover 406,000 farmers as a result of seed inputs into the 2016 cropping season.

Table 3 Projected certified seeds production from Foundation seeds

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Rice (tons)</th>
<th>Cowpea (tons)</th>
<th>Total (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>8,400</td>
<td>700</td>
<td>8,510</td>
</tr>
<tr>
<td>2016</td>
<td>672,000</td>
<td>45,000</td>
<td>717,000</td>
</tr>
<tr>
<td>No. of Ha.</td>
<td>336,000</td>
<td>70,000</td>
<td>406,000</td>
</tr>
<tr>
<td>No. of Beneficiaries</td>
<td>1,344,000</td>
<td>45,000</td>
<td>1,389,000</td>
</tr>
<tr>
<td>Grain Produced</td>
<td>217,700</td>
<td>49,400</td>
<td>229,100</td>
</tr>
</tbody>
</table>

Source: CORAF/WECARD

Projections by CORAF/WECARD indicate that within two years, the initiative will directly impact over 400,000 farmers leading to the production of in excess of 1.3 million mts of paddy rice (Table 3).

Mechanisms have been put in place in Sierra Leone and are being put in place in Liberia to recover the seeds supplied from farmers so as to ensure that more seeds are made available to additional farmers in subsequent years.
4 Beneficiaries

Over 220,000 farmers have received rice and maize seeds. Out of this number there is a fairly equal distribution between men and women (55% men and 45% women). 55% of the overall beneficiaries are youth. (Figure 2). This percentage is almost the same for all of the MRU Member States. Table 4 indicates that this is the case for all crops.

In Gbenlin, Nimba County Liberia, a group of farmers received emergency Nerica L19 seeds which they cultivated on 40 hectares of lowland swamp. The farm which is supervised by CARI through AfricaRice is managed by a group of 97 farmers 36 of whom are women. The group stated that as a result of the Ebola they lost 150 tons of rice seed during the previous cropping season. The group that they were highly appreciative of the Nerica L19 seeds because they could now cultivate their rice crop three times a year they were expecting a bumper harvest from the improved seed varieties.

In Kambia district in Northern Sierra Leone as with other parts of the country farmers groups received certified Nerica seeds. Many of the groups in Kambia were women dominated and these groups had lost a significant number of their membership to Ebola. The groups appreciated the timely support and were expectant of abundant harvest.

Table 4. Seed Distribution by Gender and Age

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Youth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>40,806</td>
<td>37,694</td>
<td>45,341</td>
</tr>
<tr>
<td>Maize</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rice</td>
<td>50,484</td>
<td>40,326</td>
<td>49,945</td>
</tr>
<tr>
<td>Maize</td>
<td>12,621</td>
<td>10,002</td>
<td>12,486</td>
</tr>
<tr>
<td>Rice</td>
<td>29,900</td>
<td>18,200</td>
<td>26,816</td>
</tr>
<tr>
<td>Total</td>
<td>80,006</td>
<td>63,227</td>
<td>126,482</td>
</tr>
</tbody>
</table>

Figure 2: Overall percentage of MRU Male, Female and Youth Beneficiaries
5. Seed Ceremonies

To ensure maximum visibility of the Post Ebola Emergency Seed recovery across the region, official ceremonies were held in both sending and receiving countries. Each of these ceremonies were attended by senior government dignitaries and beneficiary farmers.

The Sierra Leone Ceremony
The emergency recovery seed reception ceremony in Sierra Leone took place in Makeni, Bombali District, Northern Sierra Leone on the 11th May, 2015. In his keynote address, Minister of Agriculture, Forestry and Food Security, Dr. Joseph Sam Sesay, pointed out that the Ebola Virus Disease had destabilized the livelihoods of numerous individuals employed within the agriculture sector. Farmers all over the country had to grapple with the realization that they had to face hardship due to the unavailability of seeds for the next planting season”. Other speakers were representatives from the World Bank, ECOWAS, MRU CORAF/WECARD, AfricaRice, USAID, a, Member of the Parliamentary Oversight Committee on Agricultural and the National Farmers’ Association.

The Liberia Ceremony
The Liberia emergency recovery seed reception ceremony took place in Gbarnga, Bong County on April 17th 2015 and was graced by the Vice President of the Republic of Liberia, H.E Joseph N. Boakai. The Vice President stated that he appreciated the fact that the seeds would bridge the gap created in the agricultural sector by the outbreak of the Ebola Virus in 2014. He also thanked partners for the initiative and pointed out the need for farmers to receive training in order enable them to gain further knowledge on the Handling of the improved and certified seeds they are to receive. Other speakers were the Acting Minister of Agriculture, the Chair of the Agriculture Committee in the House of Representatives. Deputy Ministry of Finance and Development Planning, representatives from ECOWAS, World Bank, CORAF/WECARD, FAO, WFP, and the Farmers Union Network.

The Guinea Ceremony
A ceremony was held in Kankan, Guinea to mark the sending of seeds to Liberia. In his statement before releasing the seeds the Prefect of Kankan acknowledged the sisterly ties between the two countries and wished Liberians well in their road to recovery of the agricultural sector. Other senior Government representatives were present at the ceremony.
Other sending countries held similar ceremonies.

**6 Challenges and Solutions**

Despite the overall success of the Emergency Seed Initiative, there were numerous challenges associated regional movement of large amount of goods across numerous borders. Notwithstanding all measures taken to facilitate the free movement within ECOWAS and the establishment of a humanitarian corridor to facilitate the provision of aid, many obstacles were encountered during transportation of seeds to the Ebola affected countries. This led delays which increased the length of time seeds remained on trucks thus impacting the quality of the seeds. The specific challenges and proposed solution proposed by the main individuals responsible for the successful outcome of the initiative are outlined below:

**Identified Challenges:**
- Unnecessary detention by border officials and Payment of unofficial border fees and costs;
- Delays in obtaining the required documentation;
- Delay in signing the MoUs
- Non provision of funds for: mobilization fees for seed companies; payment to the carrier;
- Delay in obtaining travel documents and re-validating them after they expired;
- Extensive time lapse in receipt of payments to providers.

**Proposed solutions:**

**Policy and institutional**
- Heads of States and Foreign Ministers of ECOWAS Countries need to ensure border patrol and Immigrations officials are properly sensitized to reduce bottlenecks at the ports of entry;

- ECOWAS harmonized protocol for movement of goods across borders should be enforced;
- Countries collaborate in ensuring that the regulations are followed;
- Information about goods cleared by the ECOWAS Commission should be available on an electronic and web-based platforms accessible to border officials whose capacities should be built up to access such Information;
- Organize a sub-regional meeting in order to bring information to the authorities in respect of freedom of movement within the ECOWAS.

**Procedural and operational**
- Distribution of seeds and fertilizers should be carried out concurrently to ensure the timely supply of the commodity to the farmers;
- Documents accompanying the consignment to be available in should be available in both to aid non bilingual officials;
Solutions continued
✓ Employ agents to help process the documentation and drivers who are experienced in issues associated with cross border trade and travel requirements.
✓ Involve the decentralized structures of the ministries concerned, local authorities and the regional directorates of Agriculture;
✓ For coastal countries use the Seaway to transport which is cheaper with fewer constraints than the overland transport;
✓ Carry out a widespread information dissemination.

Sustainability
✓ Promote the installation of local seed companies and develop a partnership with those of the sub-region.
✓ The Customs Department at the ECOWAS Commission should be strengthened to address the enormous challenges and volume of work that the office entails.

FOR FURTHER INFORMATION CONTACT
Ms. Kenyeh Barlay   Coordinator Japanese PHRD Grant WAAPP: Tel:+232-78167113, Email : kbarlay2004@yahoo.co.uk
Dr Alpha Ahmadou BALDEH,  Program Officer, Agriculture ; Tel: +232-78142930 ,Email : alfahmadou@yahoo.fr
Mr. Bakary KABA, IT Officer ; Tel : +232-78259456 Email : bakota2009@gmail.com

FOR TECHNICAL INFORMATION
Dr Niéyidouba Lamien WAAPP Program Officer CORAF/WECARD: Tel:+ 221- 33 869 96 18, Email : n.lamien@coraf.org
Dr. Asiedu Chief of Party, West Africa Seed Program CORAF/WECARD: Tel: +221 77 310 27 45, Email : e.asiedu@coraf.org