

# ISSD Africa



## ISSD Africa Ghana National Seminar

Winneba, 30, August, 2016



Participants of the Seminar

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- Emmanuel Asante Krobea - Directorate of Crop Services, Ministry of Food and Agriculture (MoFA)
- Charles Quansah-Associate Prof. KNUST retired/ ISSD Ghana Task Force Coordinator.

Commissioned by: Centre for Development Innovation (CDI), Wageningen UR

## Table of Contents

List of Tables .....	ii
LIST OF ACRONYMS .....	<b>Error! Bookmark not defined.</b>
1.0 Introduction .....	1
1.1 Background to ISSD Africa .....	1
2.0 Objectives of the National Seminars .....	2
3.0 Seminar Methodology .....	3
4.0 Plenary presentations .....	11
a. Opening .....	11
5.0 Synthesized findings for TWG on Seed Sector Development to Support CAADP Implementation within the Framework of the African Seed and Biotechnology Programme (ASBP).....	11
6.0 Main outcomes of the working groups.....	12
7.0 Conclusions and future focus areas of ISSD Africa .....	14
8.0 Evaluation.....	14
8.1 Interests in the Main ISSD Functions .....	14
8.2 Thematic suggestions .....	15
Annexes.....	17
Annex 1: Seminar Programme (Facilitated by Charles Quansah).....	17
Annex 2: List of participants in the ISSD AFRICA National Seminar.....	18
Annex 3: Overview of TWG 4 action learning questions .....	19
Annex 4: Mapping of National Seed Stakeholders – Organisations and Projects/Programmes.....	20
Annex 5: Mapping Relevant Seed sector Events .....	24
Annex 6: Overview programmes and projects .....	26
Annex 7: Working Group Results .....	34

## List of Tables

Table 1: linkages of ISSD Africa to Ghana’s agricultural policy processes.....	4
Table 2: Concrete entry points for ISSD Africa .....	7
<b>Session 1</b> .....	34
Table A: Group 1 Presentation on Linkages of ISSD Africa to Ghana’s agricultural policy processes.....	34
Table B: Group 2 Presentation on Linkages of ISSD Africa to Ghana’s agricultural policy processes.....	36
<b>Session 2</b> .....	37
Table C: Group 1 Presentation on Concrete Entry Points for ISSD Africa.....	37
Table D: Group 2 Presentation on Concrete Entry Points for ISSD Africa .....	40

## 1.0 Introduction

In ISSD Africa we see integrated seed sector development as an approach to enhance reliable access of male and female smallholder farmers to sufficient quantities of quality seed of superior varieties at the right time and at an affordable price; and to increase male and female farmers' choice in terms of crop varieties, and seed quality, price and availability. Using the ISSD approach we work on four important challenges in the seed sector in Africa: (1) how to promote seed entrepreneurship; (2) how to increase access to varieties in the public domain; (3) how to match global commitments with national realities; and (4) how to support seed sector development under CAADP. For each challenge, a thematic working group has been created.

The first two phases of the ISSD Africa project have been concluded. The first phase, the Launch phase, involved the institutional embedding of the project, the start of thematic working groups and the preparation of the action-learning projects. The second phase, the Action-learning phase, involved the implementation of the action-learning projects and the validation of preliminary project results (partly concluded). We are currently preparing the third phase, the Consolidation phase, in which we will be synthesizing and sharing results of the action-learning projects.

During the inception meeting on 16 and 17 September 2014, thematic working groups reflected on the current framing of the themes, considered where a breakthrough is needed in the context of each theme, and formulated three to five action-learning questions to be addressed per theme; find the questions in Annex 4.

Based on the discussions during the inception meeting four theme scoping papers have been developed. These papers provide an introduction to the themes, with the current state of affairs, areas of breakthrough needed, and delineate the themes in the research questions. The scoping papers can be found on [www.issdseed.org/resources](http://www.issdseed.org/resources).

From 9-11 February 2015, a three-day ISSD Africa training was organized in Kampala, Uganda, for national partners and country focal points. Following the ISSD Africa training, we organized a two-day action-planning meeting for the final preparation of the proposed action plans for the action-learning projects under each theme. Participants of the workshop were thematic working group members, as well as the national partners and country focal points.

The action-learning projects for thematic working groups have been implemented over the period of March 2015 – March 2016. The results of the projects of thematic working groups have been shared, discussed and synthesized during 3-day cross case analysis meetings, organized in Nairobi from 7-12 December 2015.

## 1.1 Background to ISSD Africa

The goal of ISSD Africa Programme is to support the development of a market-oriented, pluralistic, vibrant and dynamic seed sector in Africa for providing both female and male smallholder farmers access to quality seed of superior varieties.

The Programme uses the [ISSD approach](#), which has been endorsed by the African Union Commission as contributing to the implementation of the African Seed and Biotechnology Programme (ASBP) and the seed agenda of the Comprehensive Africa Agriculture Development Programme (CAADP).

[Click here](#) to read more on ISSD Africa.

## **2.0 Objectives of the National Seminars**

The ISSD Africa project has recently run national seminars organized in 10 countries where action-learning projects have been implemented.

The national seminar in Ghana is part of the referred series of National Seminars.

The objectives of these seminars are:

- i. To present the synthesized findings of the action learning project across the continent to national seed sector stakeholders and policy makers
- ii. To embed the synthesized results of the different action learning projects in a wider seed sector and policy context and link the synthesized findings to national policy processes
- iii. To discuss how to translate these synthesized results into change agendas and to propose concrete entry points for change, as input for the proposal for a Comprehensive programme on ISSD in Africa

### 3.0 Seminar Methodology

#### (i) Mapping of policy makers and other stakeholders

In preparation of the national seminars and to be able to achieve objectives (ii) and (iii), a mapping of the national seed sectors and policy contexts was conducted, to get an understanding about the relevant organizations, projects/programmes involved in seed sector development and relevant seed sector events in the different countries. These mappings were conducted in the period 15 December 2015 – 31 January 2016. The results will be used as input for the discussions of the national seminars (planned for February/March 2016). Following the national seminars an advocacy strategy will be designed, building on the results of the mapping and the national seminars, on how to achieve breakthroughs on the ISSD Africa themes.

The mapping consists of three steps; (1) a mapping of relevant organizations; (2) a mapping of relevant projects/programmes; and (3) a mapping of relevant seed sector events. A detailed description and format for each step can be found on the next pages.

(ii) In the workshop a synthesis of key lessons of the different themes was provided, while the Action Learning Projects (ALPs) of the particular country was presented.

(iii) Presenters provided a list of key lessons/issues for follow-up (general and case study specific).

The provided list (depending on topics) was used in the working groups: Priorities and links with policy making: Some 6-7 issues were listed for each working group.

**Table 1:** linkages of ISSD Africa to Ghana’s agricultural policy processes

(Sub) theme	Which policy makers?	Which stakeholders?	Which projects?	Which events?
Hasten the implementation of national seed plan as it holistically covers all seed sector challenges	MoFA, NSC	All interested parties (DPs, NGOs, CSOs) in seed sector and general agriculture	FtF-ATTF, SSTP, APSP, ABSP, AGRA-PASS	Lobbying approaches, advocacy
Build adequate capacity for private sector development	MoFA, MoTI, GIPC, MELR	GAIDA, NASTAG, SEEDPAG, FBOs, CBOs	FtF-ATTF, SSTP, APSP, ABSP, AGRA-PASS	Continuous/on-going
Mainstream informal sector	MoFA, MLG, MESTI	Farmers, Smallholder seed entities, PGRRI	ISSD Ghana,	Continuous
<b>Variety development issues</b>				
Low variety maintenance breeding	MoFA, MESTI, MoF	CSIR (CRI, SARI, PGRRI), universities, private seed companies, BNARI,	WAAPP, AGRA, WACCI, CGIAR Centres	Continuous
Inadequate early generation seed production		GGLDB, Private seed companies, CSIR, Universities	WAAPP, WASP, Seed Growers, YIIFSWA	Continuous
Inadequate resources/incentives for breeding research work		Agricultural Research Stations, Parliament, MoF, DPs	AGRA, WAAPP, YIIFSWA, CAYSED	Annual budgeting, project sponsorships

Improve the demand base for seed marketing	MoFA, MESTI, MoTI	Seed companies, NASTAG, DPs, MoFA (DAES, DCS, PPRSD), MLG, Farmer Associations	ATTP, FtF Seed Upscaling,	Implementation of related projects in the National Seed Plan
Assist in establishing and rehabilitating (existing) seed processing and storage facilities	MoFA, GIPC, Banks	GGLDB, Seed Companies, NASTAG, MoFA (PPRSD), Banks	FtF-ATTF, SSTP, APSP, ABSP, AGRA-PASS	Specific proposals from interest groups
Target seed legislation and quality assurance processes to the various seed systems	MoFA, Parliament	NSC, NVRRC, CSOs, PPRSD, Farmers, seed growers, MJ & AG	CORAF, WASP, WAAPP, APSP, AGRA	Continuous
Implement legal procedures for the establishment of a Seed Fund	MoFA, MoF, Parliament	PPRSD, NSC, NVRRC, Seed Companies, NASTAG, DAES, DCS, MJ & AG	None	Lobbying and advocacy
Seed Marketing	MoFA, MoTI, MoF	Private sector, MLGRD, FBOs	USAID-FtF-APSP, ATTP, WAAPP	Workshops, Esoko, Media events
Quality Assurance	MoFA (PPRSD-GSID, PPBD)	National Agric. Research Institutes (NARIs), SEEDPAG, GAIDA, NASTAG	USAID-FtF-APSP, WASP, UNIDO, AGRA, GIZ, ADVANCE	Training, Seminars, Workshop, Media events, ESOKO
Agronomic Practices	MoFA (DAES, DCS, PPRSD, PPBD), NARIs	FBOs, SEEDPAG, GAIDA, NASTAG	ISFM-AGRA, ADVANCE, CABI, WAAPP	Training, Demonstration farms

Informal Seed System	MoFA (DAES, DCS, PPRSD, PPBD),	FBOs, SEEDPAG, GAIDA, NASTAG	Nil	Training, Demonstration farms, Extension, Promotions
Enforcement of Regulations	MoFA (DAES, DCS, PPRSD, PPBD), Security Agencies	SEEDPAG, GAIDA, NASTAG	AGRA, WAAPP, WASP, ADVANCE	Training, Demonstration farms, Extension, Promotions
Seed Storage, Processing and Conditioning	MoFA (AESD, GLDB, PPRSD)	FBOs, NASTAG, SEEDPAG, GAIDA, Crop-Life, Universities, BNARI, PGRRI, Private sector	Agric. Technology Transfer (ATT), UASID – Post Harvest Loss – Innovation Labs,	Training, Demonstration farms, Extension,
Capacity and Access to WAXIS platform	ECOWAS, CORAF-WECARD, MoFA-ICT	SEEDPAG, GAIDA, NASTAG, FBOs	WAXIS, MoFA E-extension project	Training, Demonstrations, Websites,
Human Resource Capacity	MoFA, NARIs,			Training in Business Development, Academic courses

- (iv) During a plenary presentation of the working group results and the following discussion, possible changes were made to the referred list of priority issues.
- (v) The priority list was further discussed in the working groups for desired change and action as well as role for ISSD Africa

**Table 2:** Concrete entry points for ISSD Africa

(Sub) themes	Desired change(s)	Key steps	Stakeholders/ partners to be involved	Possible support of ISSD Africa (non-financial)
Common challenges to promoting entrepreneurship in seed value chains	Improved infrastructure for research, processing, storage, irrigation and marketing	Identify sector requirement  Stakeholder consultations and recommendations  Project and other implementation modalities	MoFA (AESD, PPRSD, DCS), MoTI, GGLDB, MESTI (CSIR), Universities, GIPC, Banks, DPs, COTVET	Technical support, advocacy, human resource development
	Efficient information exchange	Creation of a knowledge base  Creation of dissemination channels and engagement platforms	MoFA (DAES, SRID, E-Agric), Universities and other learning centres, seed sector actors, GIPC, media (print and electronic)	Provision of materials, training manuals, workshops and seminars, resource persons
	Improved access to institutional credit	Advocacy and stakeholder dialogue  Operationalize agreed recommendations	GoG, CSOs, financial institutions, insurance companies, investors, GIPC, DPs, Bank of Ghana	Advocacy, consultancies

	Improved seed demand	Marketing studies to establish baselines  Tabling of results and recommendations  Linkage to improve policy framework  Linkage to field activities to improve GAPs	DAES, DCS, NASTAG, farmers, media, input dealers, NARIs, GGLDB	Consultancies, capacity building,
	Strong and functional seed associations	Implementation of the private sector development component of the National Seed Plan	MoF, NASTAG, NBSSI,	Capacity building
	Enhanced investment incentives	Development of position paper on investment incentives from the National Seed Plan and Investment Code  Lobbying in high places for rapid implementation of recommendations from the position papers	GIPC, Financial institutions, Parliament	Consultancies
	Creation of seed business incubation centres	Research, consultation and agreement on modalities  Advocacy Implementation and sponsorship by	NASTAG, MoFA, GIPC, NBSSI, Investors, Africa Agricultural Incubation Network (AAIN)	Consultancies, resource materials

		concerned entities		
Access to variety in the public domain				
Information on available material	- Development and dissemination of fliers with passport data on varieties	NARIs, MoFA, NASTAG, NGOs, CSOs, SEEDPAG, Aggregators, Industry, processors	- Make available best practices Technical support (e.g. electronic platforms)	Information on available material
Maintenance breeding for continued availability of desired varieties	- Outsourcing under breeder supervision for reasons of contamination and resource constraints - Locating and acquiring isolated sites for breeding  Strengthen the capacity of the Germplasm Bank (PGRRI)	Private seed producers, DPs, Universities, PGRRI, NARIs, Africa Seed & Biotechnology programme (ASBP)	Linkage to funding sources	Maintenance breeding for continued availability of desired varieties
Inadequate volumes of all classes of seeds	- Contracting of private seed companies by NARIs  Introduce alternative technologies for seed conditioning and storage	Africa Seed & Biotechnology programme (ASBP), NARIs, Universities, Private seed producers, private seed processing and distribution companies.	- Technical support	Inadequate volumes of all classes of seeds
Marketing and promotion of available	- Widespread demonstration	DPs, NASTAG, SEEDPAG, GAIDA,	Technical support,	Marketing and promotion of

varieties	plots (i) Free samples of seeds (ii) Multimedia advertisement Appropriate sized marketed seed packaging to suit both small-scale and large-scale producers	Media, NGOs, CSOs	GAPs	available varieties
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- (vi) In the plenary session working group matrices were presented and discussed.
- (vii) The final next steps discussion is based on the expected role of ISSD Africa, as presented by the working groups and based on the evaluation forms, which also refer to the expectations for ISSD Africa
- (viii) Closure

## **4.0 Plenary presentations**

### **a. Opening**

The seminar commenced with welcoming remarks and a brief introduction of the programme by the facilitator, Prof. Charles Quansah. This was followed by self-introduction of the participants and an opening address by the Director of the Directorate of Crop Services (DCS) of the Ministry of Food and Agriculture (MoFA), Mr Seth Osei-Akoto. In his address, Mr. Osei-Akoto elaborated on how smallholder farmers' access to quality seed could increase productivity, resulting in increased growth and reduced poverty. Towards achieving these outcomes, he indicated that seed related issues have been adequately addressed in the national development policy and relevant strategic documents. These include the Ghana Shared Growth and Development Agenda (GSGDA), Food and Agricultural Development Policy (FASDEP) II, Medium Term Agricultural Investment Plan (METASIP) II, National Seed Policy and National Seed Plan. He reiterated the importance of the ISSD principles and the need to adopt them in the development of market-oriented, pluralistic, vibrant and dynamic seed sector in Africa, and charged the participants to produce concrete ideas and practical measures for achieving these goals. In his closing remarks, Mr Osei-Akoto expressed his appreciation to the Netherlands Government for supporting CDI of Wageningen University and Research Centre in contributing to the development of the Ghana's seed sector.

Following the opening address, Mr Josiah Wobil, Focal Person for ISSD Ghana, presented the objectives of the seminar as well as the background of the ISSD Africa Program.

## **5.0 Synthesized findings for TWG on Seed Sector Development to Support CAADP Implementation within the Framework of the African Seed and Biotechnology Programme (ASBP)**

An assessment of the relevant organizations, programmes/projects, key strategies and case studies of "success stories" was carried out to get a better understanding of their roles and contribution in the development of the seed sector as related to alignment with the CAADP implementation strategy within the Framework of the African Seed and Biotechnology (ASBP) Programme.

The outcomes of the mapping exercise revealed the following:

- The existence of key strategies, such as, the Food and Agricultural Development Policy (FASDEP) II, Medium Term Agricultural Sector Investment Plan (METASIP) II, National CAADP strategy. These strategic documents present an elaborate coverage of seed sector development in the country and provide needed direction and impetus for the development of a pluralistic, vibrant and dynamic seed sector.
- There is great potential for developing a pluralistic seed system in the country by taking advantage of the huge gap between informal and formal seed sectors where the former covers a larger portfolio of crops and supplies about 80% of the seed needs of the country with a great opportunity for the development of local seed business.
- There is a large array of programmes/projects and stakeholders involved in different seed systems which present opportunities for further engagement in promotion of a pluralistic and vibrant seed sector development. The outcomes of the mapping exercise revealed that:
  - Issues related to seed infrastructure development, equipment and quality assurance have not been adequately considered in the implementation of seed sector activities;
  - Support to the informal seed sector has not been adequate;

- Support to marketing and entrepreneurship development programs on seed are limited in the seed sector programs being implemented;
- Insufficient seed sector stakeholders' platform for building synergies, complementarities, information sharing and preventing duplication of seed related activities.

## **6.0 Main outcomes of the working groups**

The Medium Term Agricultural Sector Investment Plan (METASIP II) which is the investment plan of the Food and Agricultural Development Policy (FASDEP II), and related strategic documents (The National Seed Policy and National Seed Plan) are well aligned with the CAADP strategies and incorporate most of the six programme objectives and activities of the African Seed and Biotechnology Programme (ASBP) envisaged to contribute to increased food security and nutrition and to poverty alleviation in Africa.

In consequence, the working group and plenary sessions discussed issues that could enhance seed sector development in the country whilst contributing to the implementation of the CAADP. These included, among others;

- i. Implementing Ghana's Seed Plan, as it holistically contains all the challenges in the seed sector;
- ii. Mainstreaming the informal seed sector and strengthening its linkage with the formal seed sector to better understand and respond to farmer needs, including smallholder women farmers;
- iii. Inadequate early generation seed production and low variety maintenance breeding resulting from inadequate resources/incentives for breeding research;
- iv. Improving the demand base for seed marketing;
- v. Building human resource capacity for seed entrepreneurship from private sector development;
- vi. Assistance in establishing and rehabilitating (existing) seed processing and storage facilities; and
- vii. Targeting seed legislation and quality assurance to the various seed systems

Further discussions prioritized two thematic areas for desired change as well as role for ISSD Africa. These comprised:

- i. Common challenges to promoting entrepreneurship development in the seed value chain; and
- ii. Access to variety in the public domain

On the issue of entrepreneurship development, the discussions focused, among others, on

- i. Access to new varieties of seed
- ii. Capacity building of seed value chain actors;
- iii. Access to physical assets and infrastructure (processing, storage, irrigation, research, marketing);
- iv. Access to institutional credit;
- v. Efficient information exchange through creation of knowledge base, dissemination channels and engagement platforms;

- vi. Enhanced investment incentives through the development of position paper on investment incentive from the National Seed Pan and Investment Code; and
- vii. The creation of seed incubation centres

The sub-themes under access to varieties comprised:

- i. Promotion of information development and maintenance of information dissemination systems on available materials and technology transfer;
- ii. Maintenance breeding for continued availability of desired varieties through either outsourcing under the supervision of a breeder or locating an isolated site for breeding;
- iii. Address the issue of inadequate volumes of all classes of seed through strengthening the multiplication and supply of breeder seed and foundation institutes and organizations, and promoting best practices for variety release and multiplication of, in particular public varieties, to local and private seed entrepreneurs; and
- iv. Marketing and promotion of available varieties through widespread field demonstration activities, multimedia advertisement and appropriate sized packaging of marketed seeds.

## **7.0 Conclusions and future focus areas of ISSD Africa**

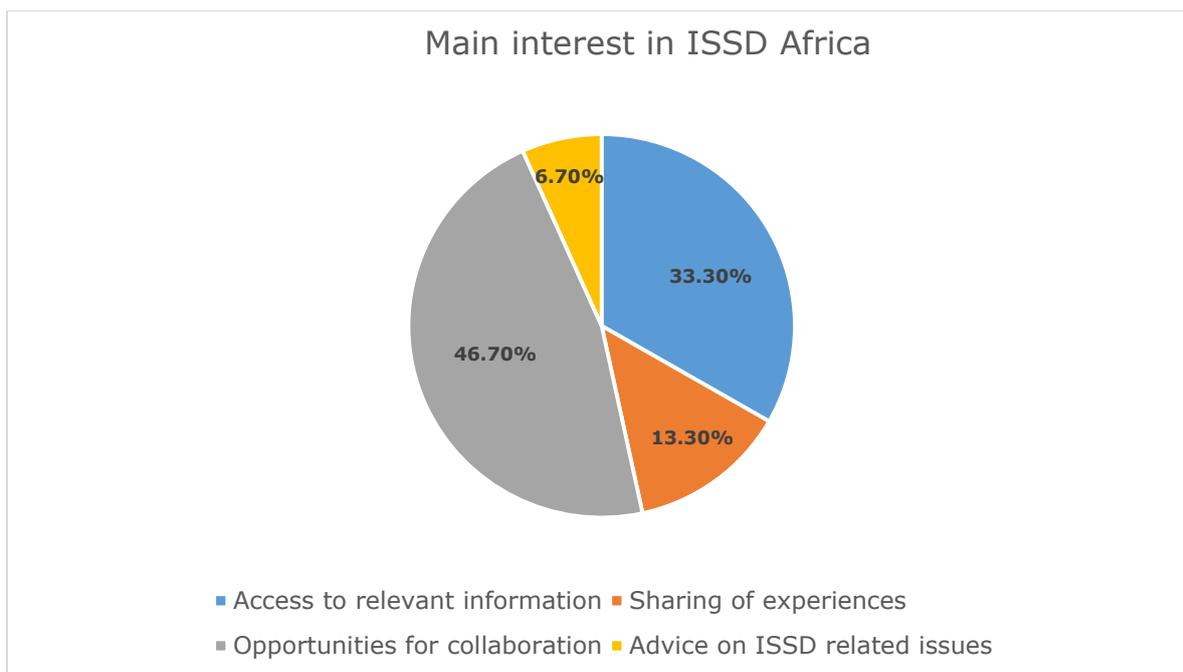
The prioritized future focus areas that emerged from the seminar for ISSD Africa were:

- In the face of the reality of the adverse impacts of climate change on agricultural production, Africa's food security will benefit from ISSD Africa promoting and assisting in the development of climate-resilient, high yielding, disease and pest-resistant, short duration crop varieties, taking into account consumer health and safety at the regional and continental levels.
- Harmonization of different standards and quality assurance of seed systems in the different countries would require the lead role of ISSD Africa to facilitate marketing and cross border trade in support of the achievement of the pluralistic, vibrant and dynamic seed sector in Africa.
- Documentation and sharing of experiences in seed quality assurance processes, tailored to different seed systems and type of seed, among countries by ISSD Africa would enhance availability, accessibility and marketing of quality seed to smallholder farmers.
- ISSD Africa could play a major role in the human capacity building and strengthening for effective functioning of the various components of the seed value chain.
- The advocacy role of the ISSD Africa in brokering investment opportunities in the seed sector development at high decision making levels would benefit the development of the seed sector at regional and continental levels.

## **8.0 Evaluation**

### **8.1 Interests in the Main ISSD Functions**

The relative interest of participants in access to relevant information, sharing experiences, opportunities for collaboration and advice on ISSD related issues is presented in Figure 1. Nearly half of the participants expressed interest in opportunities for collaboration. This was followed by access to relevant information in the seed value chain. Relevant information is particularly important for all stakeholders in the seed sector in harnessing the benefits of the ISSD principles and approach for addressing the myriad of challenges in the African seed sector. The magnitude of interest was low in sharing experiences and lowest in advice on ISSD related issues.



**Figure 1:** Participants’ evaluation of their main interest in ISSD Africa.

## 8.2 Thematic suggestions

Participants brainstormed on challenges to be tackled at the continental level in the next phase of ISSD Africa. The following emerged from this exercise:

- **Development of variety and access issues:** Breeding should focus on developing climate resilient, high yielding, disease and pest-resistant, short duration crop varieties taking into account consumer health and safety. The ever-worsening climatic conditions, particularly in Africa often result in poor yields, at times, total crop failures. The result, is increased food insecurity and poverty. While attempts are being made to mitigate the direct impact of climate change, a focus on developing climate-resilient seeds will present enormous benefits to Africa’s development.

Development of nutrient rich seeds also has the potential to improve human health through reduction of malnutrition, particularly in infants

- **Quality Control and Seed Certification:** A more practical, focused and relevant quality assurance process is needed for the various seed systems and type of seed (true seed and vegetatively propagated) to enhance availability, accessibility and marketing. Support is needed to enhance the maintenance of high quality seeds of varieties at the points of production, handling and also moving in commerce.
- **Seed marketing:** The promotion of cross-border trade in seeds requires harmonization of the Region’s seed marketing systems to address issues of different standards in different countries. This is critical in achieving the goal of pluralistic, vibrant and dynamic seed sector in Africa.
- **Security of land tenure:** The characteristic large tracts of land needed for the production of seeds present implications for land tenure issues which need to be addressed to ensure security of tenure. An alternative intervention worth considering is the aggregation of seeds from smallholder producers.

- Seed production: Support is needed for the production of breeder, foundation and certified seeds. This requires:
  - i. Strengthening the capacity of Research institutes engaged in breeder seed production;
  - ii. Assisting foundation seed producers to determine the country's seed requirements in these domains through systematic consultations among stakeholders;
  - iii. Assisting the producers to produce the types and quantities of foundation and certified seeds required. Assistance should equally be extended to meet the special training needs of certified seed producers, particularly in methodologies for both open-pollinated varieties and hybrids. This should cover certified seeds and improved planting materials of both staple and industrial crops.

## Annexes

### Annex 1: Seminar Programme (Facilitated by Charles Quansah)

<b>Time</b>	<b>Topic</b>	<b>Responsibility</b>
08:30-08:45	Registration	Ali Williams
08:45-09:00	Introduction of participants	Charles Quansah
09:00-09:15	Official opening	Director, Directorate of Crop Services, MoFA
09:15-09:30	Intro. to ISSD Africa, objectives and programme of the seminar	J. Wobil
09:30-10:15	Presentation and discussion of synthesized findings on seed sector development to support CAADP implementation within the framework of the African Seed and Biotechnology programme.	C. Quansah
10:15-10:45	<b>Coffee break</b>	
10:45-11:30	Presentation and discussion of synthesized findings on promoting seed entrepreneurship and effective alternative quality control mechanisms for different crops in seed systems	Abishkar Subedi
11:30-12:30	Discussion groups: linkages to national policy processes	Groups
12:30-13:30	<b>Lunch</b>	
13:30-14:30	Plenary presentation and feedback	J. Wobil
14:30-15:30	Discussion groups: Identifying concrete entry points for change (input for proposal development)	Groups
15:30-16:00	<b>Coffee break</b>	
16:00-16:45	Plenary presentation and feedback	J. Wobil
16:45-17:15	ISSD-Africa-The way forward	J. Wobil
17:15-17:45	Evaluation and Closing	Director DCS, MoFA

## Annex 2: List of participants in the ISSD AFRICA National Seminar

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### **Annex 3: Overview of TWG 4 action learning questions**

The main objective was to address the issue of Seed Sector Development to support CAADP Implementation within the Framework of the African Seed and Biotechnology Programme (ASBP).

The specific objectives were to address the following research questions:

1. What mechanisms can be used to support the design and implementation of pluralistic seed sector development and implementation through the National Agriculture and Food Security Investment Plans (NAFSIPs)? In Ghana this is the Medium Term Agricultural Sector Investment Program II (METASIP II).
2. a) Where can we find examples of ‘success stories’ of effective seed sector development and implementation linked to CAADP NAFSIP processes?  
  
b) How can this evidence be used to inform and influence national policy processes related to (re) formulation and implementation of NAFSIP

#### Annex 4: Mapping of National Seed Stakeholders – Organisations and Projects/Programmes

Name organization?	From which sector?  (Public/private/NGO/donor/other)	Funded by?  (names development partners/donor)	Involved in which seed system?  (Informal/intermediate/formal)?	Which seed topics are they working on?	Influential in which policy processes/dialogues?	Opportunities for linking with ISSD Africa?	Name contact person	Email address	Comments
Ministry of Food and Agriculture	Public	GoG	Informal/intermediate/formal	Seed Value Chain	Seed Law, Policy and Regulations	Through policy reforms for informal sector	Emmanuel Asante-Krobea	<a href="mailto:krobeasant@gmail.com">krobeasant@gmail.com</a>	
M&B Seeds and Agricultural Services (Gh) Ltd	Private Sector	Self/AGRA	Formal	Production and distribution of Foundation and Certified seeds	Privatization, Seed policy, Seed plan, association formation.	Through Seed Marketing and Production	Manager: Ben Kemetse	<a href="mailto:bkemetse1@yahoo.com">bkemetse1@yahoo.com</a>	
National Seed Trade Assoc. of Ghana (NASTAG)	Private	WASP/APST-FtF, AFL II, AGRA	Formal	Production/Processing Marketing, Distribution	Seed Policy and Implementation Plan	Through training and registration of farmers in the informal sector to upgrade their operations.	Thomas W. Havor	<a href="mailto:nastaghana@yahoo.com">nastaghana@yahoo.com</a>	Increased participation of private sector on seed sector policy decisions
Seed Producers Assoc. of Ghana (SEEDPAG)	Private	WASP/APST-FtF, AFL II, AGRA	Formal	Production/Processing Marketing, Distribution	Seed Policy, Seed Law, Seed Plan, National Seed Council, Seed Regulation (LI), ASIWA process, Joint Sector Review	Through provision of certified seeds to farmers at the community level	Thomas W. Havor	<a href="mailto:seedpagghana@yahoo.com">seedpagghana@yahoo.com</a>	Increased participation of private sector on seed sector policy decisions
Yonifah Seeds Ltd.	Private	Self	Formal	Production & Distribution	Variety Release, National Seed Council,	Through training of farmers in the communities as out-growers	Seth Havor	<a href="mailto:sethp7881@gmail.com">sethp7881@gmail.com</a>	
Ghana Grains and Legumes Development Board	Public	GoG	Formal	seed production, processing and quality control	Foundation Seed production of all crops, Agro-processing services,	Through Provision of foundation seed to community based seed initiatives	Executive Dir: Robert Asuboah	<a href="mailto:asuboah@hotmail.com">asuboah@hotmail.com</a>	

Name organization?	From which sector?  (Public/private/NGO/donor/other)	Funded by?  (names development partners/donor)	Involved in which seed system?  (Informal/intermediate/formal)?	Which seed topics are they working on?	Influential in which policy processes/dialogues?	Opportunities for linking with ISSD Africa?	Name contact person	Email address	Comments
					management of National seed security stock				
Ghana Seed Inspection Division (GSID) of Plant Protection and Regulatory Services Directorate (PPRSD)	Public	GoG	Formal	Seed Law, Regulations, Quality Control	Registration of Seed Growers, Dealers and outlets, Certification, Sensitization on the seed law and regulations	Through Registration of seed producers, capacity building	The Head, GSID: Mr. Eric Quaye	<a href="mailto:bequaye18@yahoo.co.uk">bequaye18@yahoo.co.uk</a>	
Directorate of Crop Services	Public	GoG	Formal/Informal	Seed Production, Variety Release and Registration, Seed Policy and Implementation Plan	National Seed Policy and plan implementation, ECOWAS Harmonization processes, Variety Release and Registration, Seed pricing, Capacity Building for seed sector stakeholders	Through Seed Plan implementation, promotion and adoption of improved high-yielding crop varieties and through implementation of ECOWAP relating to Seeds	Director: Emmanuel Asante-Kroba	<a href="mailto:krobeasant@gmail.com">krobeasant@gmail.com</a>	
CSIR-CRI/SARI	Public	GoG	Formal	Variety development and maintenance	Seed Policy, Plan and Plant Breeders Bill	Through breeder seed production of improved varieties to farmers and Farmers Rights	Dr. Stella Annin (Director, CRI) and Dr. S. K Nustugah (Director, SARI)	<a href="http://www.csir.org.gh">www.csir.org.gh</a> <a href="mailto:eminstella@yahoo.com">eminstella@yahoo.com</a> <a href="mailto:sknustugah@hotmail.com">sknustugah@hotmail.com</a>	
National Seed	Public/	GoG/Donor	Formal/Informal	Seed Value Chain	Seed Policies,	Through support	Emmanuel	<a href="mailto:krobeasant@gmail.com">krobeasant@gmail.com</a>	

Name organization?	From which sector?  (Public/private/NGO/donor/other)	Funded by?  (names development partners/donor)	Involved in which seed system?  (Informal/intermediate/formal)?	Which seed topics are they working on?	Influential in which policy processes/dialogues?	Opportunities for linking with ISSD Africa?	Name contact person	Email address	Comments
Council	Private				Laws and Regulations	to ensure overall coordination and development of the seed industry	Asante-Krobea (Director DCS)  Milly Kyofa-Boamah (Director, PPRSD)	<a href="mailto:mkyofaboamah@yahoo.com">mkyofaboamah@yahoo.com</a>	
Directorate of Agricultural Extension Services	Public	GoG	Informal/intermediate/formal	Seed Extension, Group Dynamics	Seed Information and technology dissemination	Through provision of seed extension and promotion activities as well as assistance to the informal sector	Dr Kwame Amezah (Director, DAES)	<a href="mailto:kamezah@hotmail.com">kamezah@hotmail.com</a>	
The Plant Genetic Resources Research Institute of CSIR (PGRRI)	Public	GoG	Formal/Informal	Germplasm conservation and characterization	Seed and planting material conservation	Through conservation of germplasm preservation of land races. Also through characterization of all germplasm in its gene bank	Dr Lawrence Aboagye-Misa	<a href="mailto:aboagyelawrencemisa@yahoo.com">aboagyelawrencemisa@yahoo.com</a>	
Adventist Development & Relief Agency - ADRA	NGO	AGRA	Informal/ Formal Community/Farmer Saved	Seed Production and Distribution	Seed Law	Through support to communities in seed dissemination, train informal sector on	Isaac Kankam-Boadi 0276677277	<a href="mailto:isaackankam@yahoo.com">isaackankam@yahoo.com</a>	

Name organization?	From which sector?  (Public/private/NGO/donor/other)	Funded by?  (names development partners/donor)	Involved in which seed system?  (Informal/intermediate/formal)?	Which seed topics are they working on?	Influential in which policy processes/dialogues?	Opportunities for linking with ISSD Africa?	Name contact person	Email address	Comments
						ECOWAS Seed Harmonization, Preservation of land races, Training in entrepreneurship			
Policy, Planning, & Budget Directorate (PPBD)	Public	GoG	Formal	FASDEP II, METASIP and MTASIP II, Seed Policy and Implementation Plan	FASDEP II, METASIP and MTASIP II, Seed Policy and Implementation Plan	Through policy development and reforms	Mr. Daniel Ohemeng Boateng	<a href="mailto:danoboat60@gmail.com">danoboat60@gmail.com</a>	
Ghana Agro-Input Dealers Association of Ghana (GAIDA)	Private	Self/Donor (AGRA)	Formal	Seed Marketing and Distribution	Seed Policy and Implementation Plan, Seed Law and Regulation	Through Seed marketing and entrepreneurship	B. T. S amartey	<a href="mailto:amarteybts@yahoo.com">amarteybts@yahoo.com</a>	
Ghana Federation of Agricultural Producers (GFAP)	Private	Self/Donor	Formal	Seed utilization	Seed Law, Policy and Plan	Through capacity building and Farmers Rights	Dr. King David Amoah	<a href="mailto:gapsecretariate@gmail.com">gapsecretariate@gmail.com</a>	
Universities (UG, UCC, KNUST)	Public	Self /Donor	Formal	Variety Development and Seed Technology	Seed Policy, Plan and Plant Breeders Bill	Through breeder seed production of improved varieties to farmers and Farmers Rights	Richard Akromah Eric Danquah J.P Tetteh	<a href="mailto:rakromah@yahoo.com">rakromah@yahoo.com</a> <a href="mailto:edanquah@wacci.edu.gh">edanquah@wacci.edu.gh</a> <a href="mailto:camoatey@ug.edu.gh">camoatey@ug.edu.gh</a> <a href="mailto:jptetteh2@yahoo.com">jptetteh2@yahoo.com</a>	

### Annex 5: Mapping Relevant Seed sector Events

Name forum/ event/ policy dialogue/ meeting/ workshop	Date	Topics of discussion	Open/closed event?	Opportunity for linking with ISSD Africa?	Comments
Seed sector stakeholders meeting under the Alliance for Seed Industry in West Africa (ASIWA)	February, 2016	ASIWA Constitution, Communication Strategy and Fund Mobilization Strategy, development of seed sector stakeholders platform	Open	Through dialogue	Proposed national seed sector stakeholders platform yet to be launched to be linked to regional platform
Launch National ASIWA	March 2016	Official launch of ASIWA (Seed Sector Stakeholders Platform)	Open	Entrepreneurs and Seed Marketing	Private sector led platform
Agribusiness training workshop for the private sector on business contracting and preparation of strong business proposals to pursue calls	February 2016	Contracting and Proposal writing	Open	Entrepreneurship	To be supported by WASP
Launching of the West Africa Seed Electronic Platform (WASIX)	April 2016	Regional Seed marketing,	Open	Entrepreneurs and Seed Marketing	Regional platform supported by WASP
Development of strategic plan to guide the operations of National Seed Trade Association of Ghana (NASTAG)	March 2016	Seed Value Chain	Open	Policy and Advocacy	To be supported by USAID-APSP
NASTAG partnership building workshop with Financial Institutions and program/projects that give out credit to the private sector	May 2016	Credit Mobilization	Open	Entrepreneurship	To be supported by USAID-APSP
Awareness creation and seed promotion through NASTAG	September 2016	Variety Release, Marketing and Distribution	Open	Seed Production and Marketing	To be supported by USAID-APSP
National Seed marketing data management for the	December 2016	Seed Marketing Information	Open	Regional Seed Marketing	Promotion of seed marking at the regional

<b>Name forum/ event/ policy dialogue/ meeting/ workshop</b>	<b>Date</b>	<b>Topics of discussion</b>	<b>Open/closed event?</b>	<b>Opportunity for linking with ISSD Africa?</b>	<b>Comments</b>
regional seed platform					level
Private-Public Partnership (PPP) promotion in Ghana's seed business	August 2016	Seed Value Chain, Contract Agreement	Open	Pluralistic approach	To be supported by WASP
Gazetting ECOWAS Seed Regulation and National Seed Regulation	March 2016	Seed Regulatory Framework	Closed	Support ratification of the National Seed Regulation	To be supported by WASP

### Annex 6: Overview programmes and projects

Name seed related project/ programme?	From which sector?  (Public / private / NGO/ donor/ other)	Funded by?  (names development partner s/donor)	Involved in which seed system?  (Informal/ intermediate/ formal)?	Key partners	Main crop and varieties	Which seed topics are they working on?	Influential in which policy processes/ dialogues?	Opportunities for linking with ISSD Africa?	Target group	Name contact person	Email address
West Africa Agriculture Productivity Program (WAAPP)	Public	World Bank	Formal/ Intermediate	MoFA, CSIR, SARI and Private sector	Cassava, Yam, Sweet potato, improved varieties	Variety Development, Seed Production, Seed Trade and ECOWAP	Regional cooperation in registration, release, dissemination and trade of technology at the ECOWAS level.	Through planting materials development, multiplication and distribution; Capacity building activities	Small holders and rural poor farmers, private seed companies, researchers	Mrs. Azara Ali-Mamshie	<a href="mailto:alimamshie@yahoo.com">alimamshie@yahoo.com</a>
Feed the Future (FtF) Agriculture Technology Transfer Project	Donor	USAID	Formal	IFDC, SARI, G AABIC, CDI, Wageningen UR, ISU, Private sector	Maize, rice and soybean, improved varieties.	Variety development, Seed production; Seed quality assurance	Seed plan development, Seed testing and quality control	Through Seed Systems development	Commercial farmers, seed companies, researchers.	Cletus Achaab	<a href="mailto:cachaab@ifdc.org">cachaab@ifdc.org</a>
Program for Africa's Seed Systems (AGRA-PASS)	Donor	AGRA	Formal	SARI, CRI, UG, KNUST, IFDC, Private sector (seed companies, agro-input dealers)	Maize, rice, cowpea, soybean, groundnut, cassava, vegetables, improved varieties.	Crop improvement ; education and training, seed production and support to agro-dealers development	Variety development,	Through seed systems development	Smallholders and rural poor farmers, private seed companies and researchers.	Issoufou Kapran	<a href="mailto:ikapran@agra.org">ikapran@agra.org</a>
West Africa Seed Program (WASP)	Donor	USAID	Formal	CORAF/WE CARD, ECOWAS, AGRA, CGIAR, AFSTA, Regional Universities.	Maize, rice, sorghum, improved varieties.	Seed Production, national and regional seed laws and regulations implementation & harmonization	National and regional seed laws and regulations	Through Seed production and marketing and ASIWA interchanges. Capacity Building	Commercial Farmers, seed companies and their associations, regulatory bodies.	Solomon Gyan Ansah	<a href="mailto:crowzee2000@yahoo.com">crowzee2000@yahoo.com</a>

Name seed related project/ programme?	From which sector?  (Public / private / NGO/ donor/ other)	Funded by?  (names development partner s/donor)	Involved in which seed system?  (Informal/ intermediate/ formal)?	Key partners	Main crop and varieties	Which seed topics are they working on?	Influential in which policy processes/ dialogues?	Opportunities for linking with ISSD Africa?	Target group	Name contact person	Email address
Scaling Seeds and Technologies Partnership (SSTP)	Donor	AGRA/ USAID	Formal	IFRI, MoFA, CARD	Maize, rice, soybean, cassava, cowpea, sorghum, improved varieties.	Seed production and dissemination	Seed Plan development	Through training of farmers and seed entrepreneurs. Policy dialogue	Smallholder farmers	Mr. Foster Boateng	<a href="mailto:fboateng@agra.org">fboateng@agra.org</a>
Seed Policy Action Node	Donor	AGRA	Formal	PPRSD	All crops	Seed policy and soil fertility	Seed policy, seed regulatory enforcement	Through policy dialogue	Executive, Judiciary, Researchers, Extension, Seed producers, Seed Companies, Seed Associations, Regulators, NGOs, Development partners, Financial institutions.	Mr. Vesper Suglo	<a href="mailto:jackvesper@yahoo.com">jackvesper@yahoo.com</a>
Sweet Potato Action for Security and Health in Africa (SASHA)	Donor	BMGF	Formal/Informal	CIP, CRI, CRS	Sweet potatoes, improved varieties.	Variety development	Development and dissemination of disease-free planting materials; marketing	Through planting materials distribution and marketing	???????????????? ????	Jan Low	??
Seeds Systems project in West and Central Africa	Donor	AusAID	Formal	SARI, CRI	Cowpea, groundnut	Seed Value chain, and marketing	Analysis of the key constraints and opportunities in the seed system;	Through identification of appropriate conditions for varieties (cereals and legumes) and capacity building	Smallholder farmers	Dr Stellan Annin  Kenneth Opore Oboubi	<a href="mailto:crirector@yahoo.com">crirector@yahoo.com</a>  <a href="mailto:kenopareoboubi@gmail.com">kenopareoboubi@gmail.com</a>

Name seed related project/ programme?	From which sector?  (Public / private donor/ NGO/ other)	Funded by?  (names development partner s/donor)	Involved in which seed system?  (Informal/ intermediate/ formal)?	Key partners	Main crop and varieties	Which seed topics are they working on?	Influential in which policy processes/ dialogues?	Opportunities for linking with ISSD Africa?	Target group	Name contact person	Email address
Program for Biosafety Systems (PBS)	Donor	USAID	Formal	IFRRI	Biotechnology crops.	Biosafety and biotechnology	Provide key stakeholders with adequate information to make evidence-based decisions regarding biotechnology products	Through interactions on biotechnology and biosafety issues and activities	Policy makers, regulators, researchers, consumers.	Daniel Osei Ofosu	<a href="mailto:ifpri-pbs@cgiar.org">ifpri-pbs@cgiar.org</a>
Improving Ghana Sustainable Value Chains for Exports	Donor	UNIDO	Formal	PPRSD	Fruits, cocoa	Seed value chain development	To improve national seed quality system through accredited laboratory service delivery	Through quality assurance processes	Seed producers, seed importers, seed exporters, farmers, researchers.	Jack Vesper Suglo	<a href="mailto:jackvesper@yahoo.com">jackvesper@yahoo.com</a>
Ghana – Agricultural Development and Value Chain Enhancement (ADVANCE)-second phase	Donor	USAID	Formal	ACDI-VOCA, MoFA, Private sector	Maize, rice, soybean, improved varieties	Seed Value Chain development	Markets access, finance, inputs and equipment services and information; capacity building and for smallholder services	Through improved production and post-harvest handling practices that include improved crop varieties, access to quality inputs, mechanization	Smallholder and commercial farmers, medium and large scale agro-processors	Meredith Jones	<a href="mailto:mjones@activoca.org">mjones@activoca.org</a>
Northern Rural Growth Project (NRGP)	Donor	ADF, IFAD, GoG	Formal	MoFA	Maize, rice, soybean, groundnut, butternut, squash	Seed Value Chain	Commodity chain development, rural infrastructure development and access to financial Services	Through improved crop varieties and seed promotion	Men/ women and Youth farmers	Felix Darimani	<a href="mailto:darimaanifelix@yahoo.com">darimaanifelix@yahoo.com</a>
Rice Sector Support Project (RSSP)	Donor	AFD, GoG	Formal	MoFA	Rice	Rice seed value chain	Support to the rice value chain development	Through land development, access to credit, capacity	Rice producers, processors and traders	Project Coordinator:	<a href="mailto:rickytwumasi@gmail.com">rickytwumasi@gmail.com</a>

Name seed related project/ programme?	From which sector?  (Public / private / NGO/ donor/ other)	Funded by?  (names development partner s/donor)	Involved in which seed system?  (Informal/ intermediate/ formal)?	Key partners	Main crop and varieties	Which seed topics are they working on?	Influential in which policy processes/ dialogues?	Opportunities for linking with ISSD Africa?	Target group	Name contact person	Email address
								building; support to the Ghana Rice Inter-Professional Body (GRIB) and applied research		Richard Twumasi-Ankrah	
Direct Support to SARI	Donor	USAID	Formal	SARI	Maize, rice, soybean	Variety Development and maintenance	Build the physical and human capacity of SARI, conduct cutting edge agricultural research that responds to farmer/market demands, and effectively disseminate those research products to large populations.	Through capacity building	SAIR researchers, particularly in rice, maize and soybean	The Director: Dr. Nutsugah  Samson Konlan	<a href="mailto:sknutsugah@yahoo.com">sknutsugah@yahoo.com</a> <a href="mailto:skonlan@usaid.gov">skonlan@usaid.gov</a>
Direct Support to the University of Ghana, Legon	Donor	USAID	Formal	University of Ghana	N/A	Variety Development and maintenance	Build capacity to provide excellent agricultural education to students from Ghana and the sub-region	Through capacity building	Administrators, professors, researchers and students.	Samson Konlan	<a href="mailto:skonlan@usaid.gov">skonlan@usaid.gov</a>
Yam Improvement for Income and	Donor	BMGF	Formal/ Intermediate	IITA, NRI, CRI, SARI, CSR	Yam, local and improved varieties	Seed Yam Production	Planting materials development, capacity	Through disease and pest free yam seeds development; and	Smallholder farmers	Haruna Briamah	<a href="mailto:haruna-briamah@yahoo.com">haruna-briamah@yahoo.com</a>

Name seed related project/ programme?	From which sector?  (Public / private / NGO/ donor/ other)	Funded by?  (names development partner s/donor)	Involved in which seed system?  (Informal/ intermediate/ formal)?	Key partners	Main crop and varieties	Which seed topics are they working on?	Influential in which policy processes/ dialogues?	Opportunities for linking with ISSD Africa?	Target group	Name contact person	Email address
Food Security in West Africa (YIISWA)							Development	market sector strengthening			
Dispatch of the technical cooperation expert for plant breeder (rice) to the West Africa Centre for Crop Improvement (WACCI), University of Ghana	Donor	JICA	Formal	University of Ghana College of Agriculture and Consumer Sciences		Rice Breeding	Strengthen the research capacity for rice breeding	Through capacity building	Students in WACCI, University of Ghana	Joseph Mensah	<a href="mailto:mensahjosephisaiah.g">mensahjosephisaiah.g</a>
Ghana Commercial Agriculture Project (GCAP)	Donor	World bank	Formal			Seed Marketing	Improve private sector led investment for agricultural development	Through PPP arrangements, nucleus and out-growers scheme, irrigation and agri-business support		Charles Nornoo	<a href="mailto:info@gcap.org.gh">info@gcap.org.gh</a> <a href="mailto:cnornoo@gcap.org.gh">cnornoo@gcap.org.gh</a>
Root and Tuber Improvement and Marketing Program (RTIMP)	Donor	IFAD, GoG	Formal/ Intermediate	MoFA, SADA	Maize, rice, horticulture (butternut, squash)	Seed Production and Processing	Root and tubers development strategies	Through competitive market-based commodity chain development; upgrading of small-scale root & tubers processing, business and marketing skills	Smallholder farmers.	Akwasi Adjei Adjekum	<a href="mailto:aaadjekum@yahoo.com">aaadjekum@yahoo.com</a>
				MoFA	Rice, improved		Rice Development	Through	Rice producers	Alhassan	<a href="mailto:hassan_umarr@yahoo.com">hassan_umarr@yahoo.com</a>

Name seed related project/ programme?	From which sector?  (Public / private / NGO/ donor/ other)	Funded by?  (names development partner s/donor)	Involved in which seed system?  (Informal/ intermediate/ formal)?	Key partners	Main crop and varieties	Which seed topics are they working on?	Influential in which policy processes/ dialogues?	Opportunities for linking with ISSD Africa?	Target group	Name contact person	Email address
Sustainable Development of Rain-fed Lowland Rice Production Project (Rain-fed lowland rice project)	Donor	Japanese technical cooperation	Formal		varieties	Rice Seed Production Techniques	Strategy	Development and dissemination of model for sustainable rain-fed lowland rice production, improve farming system and capacity building		Imoro	
SEED PRODUCTION (4 Grants)	Donor	AGRA	Formal	SEEDPAG, Farmers	Maize, rice, sorghum, soybean, cowpea, tomato	Seed Production and Distribution	Seed Policy and marketing	Through improved and disease resistant cassava cuttings, distribution of certified maize, sorghum, soybean, cowpea and tomato seeds for poverty reduction	Lexbok investments, Marbet Company Limited, Agri-Commercial Services Limited, Josma Agro-Industry Limited	Dr Issoufou Kapran	<a href="mailto:IKapran@agra.org">IKapran@agra.org</a>
CROP IMPROVEMENT (5 Grants)	Donor	AGRA	Formal	Researchers, Private sector	All crops	Variety development, Seed Production and Dissemination	Seed Policy	Through adaptation and dissemination of improved upland and rain fed lowland rice, soybean, cowpea, and improved cassava landraces	Breeders, SEEDPAG, Farmers	Dr Aboubacar Toure	<a href="mailto:AToure@agra.org">AToure@agra.org</a>
BREADBASKET (3 Grants)- Northern Region	Donor	AGRA	Formal	IFDC, SARI, GAABIC	Maize, soybean, cowpea, rice	Seed Entrepreneurship	Seed Plan Implementation	Through FBOs, smallholder farmers, agro-dealers and small and medium enterprises (SMEs)	MoFA, NGOs, FBOs, Farmers	Dr Kehinde Makinde	<a href="mailto:KMakinde@agra.org">KMakinde@agra.org</a>

Name seed related project/ programme?	From which sector?  (Public / private / NGO/ donor/ other)	Funded by?  (names development partners/donor)	Involved in which seed system?  (Informal/ intermediate/ formal)?	Key partners	Main crop and varieties	Which seed topics are they working on?	Influential in which policy processes/ dialogues?	Opportunities for linking with ISSD Africa?	Target group	Name contact person	Email address
Breadbasket Coordination (BB), Agricultural Value Chain Mentorship Project (AVCPM), Integrated agricultural								improve their entrepreneurial			
EDAIF Sponsored Rice Project	Public	GoG	Formal	MoFA	Rice	Seed Production and Distribution	National Rice Development Strategy	Through Increase in rice production and productivity, Improve farmers' income, Increase youth employment, and female participation in rice production	Farmers	Alhassan Imoro	<a href="mailto:hassan_umarr@yahoo.com">hassan_umarr@yahoo.com</a>
Ghana Agricultural Sector Investment Programme (GASIP)	Public	Donor/GoG	Formal/Informal	MoFA	All crops	Seed Value Chain	Seed Production and Marketing	Through support to seed value chain actors and entrepreneurs	Seed producers, farmers, seed exporters, seed importers, seed distributors	Mr. Roy Ayariga	<a href="mailto:ayarigaroy@gmail.com">ayarigaroy@gmail.com</a>

Name seed related project/ programme?	From which sector?  (Public / private / NGO/ donor/ other)	Funded by?  (names development partner s/donor)	Involved in which seed system?  (Informal/ intermediate/ formal)?	Key partners	Main crop and varieties	Which seed topics are they working on?	Influential in which policy processes/ dialogues?	Opportunities for linking with ISSD Africa?	Target group	Name contact person	Email address
Youth in Agriculture Programme  (YIAP)	Private /public	GoG	Formal/ Informal	MoFA, Seed Companies, Seed producers	Maize, sorghum, soybean, tomato, onion, improved varieties	Entrepreneurship, improved seed usage	Seed Plan Implementation	Through output marketing and block farming	Youth farmers		

## Annex 7: Working Group Results

### Session 1

**Table A:** Group 1 Presentation on Linkages of ISSD Africa to Ghana's agricultural policy processes

<b>Question:</b> Linkages ISSD Africa has with Ghana's agricultural policy processes.				
<b>Sub-themes</b>	<b>Which policy makers?</b>	<b>Which stakeholders?</b>	<b>Which projects?</b>	<b>Which Events?</b>
Hasten the implementation of national seed plan as it holistically covers all seed sector challenges	MoFA, NSC	All interested parties (DPs, NGOs, CSOs) in seed sector and general agriculture	FtF-ATTF, SSTP, APSP, ABSP, AGRA-PASS	Lobbying approaches, advocacy
Build adequate capacity for private sector development	MoFA, MoTI, GIPC, MELR	GAIDA, NASTAG, SEEDPAG, FBOs, CBOs	FtF-ATTF, SSTP, APSP, ABSP, AGRA-PASS	Continuous/on-going
Mainstream informal sector	MoFA, MLG, MESTI	Farmers, Smallholder seed entities, PGRRI	ISSD Ghana,	Continuous
Variety development issues				
Low variety maintenance breeding	MoFA, MESTI, MoF	CSIR (CRI, SARI, PGRRI), universities, private seed companies, BNARI,	WAAPP, AGRA, WACCI, CGIAR Centres	Continuous
Inadequate early generation seed production		GGLDB, Private seed companies, CSIR, Universities	WAAPP, WASP, Seed Growers, YIIFSWA	Continuous

Inadequate resources/incentives for breeding research work		Agricultural Research Stations, Parliament, MoF, DPs	AGRA, WAAPP, YIIFSWA, CAYSED	Annual budgeting, project sponsorships
Improve the demand base for seed marketing	MoFA, MESTI, MoTI	Seed companies, NASTAG, DPs, MoFA (DAES, DCS, PPRSD), MLG, Farmer Associations	ATTP, FtF Seed Upscaling,	Implementation of related projects in the National Seed Plan
Assist in creating and rehabilitating (existing) seed processing and storage facilities	MoFA, GIPC, Banks	GGLDB, Seed Companies, NASTAG, MoFA (PPRSD), Banks	FtF-ATTF, SSTP, APSP, ABSP, AGRA-PASS	Specific proposals from interest groups
Target seed legislation and quality assurance processes to the various seed systems	MoFA, Parliament	NSC, NVRRRC, CSOs, PPRSD, Farmers, seed growers, MJ & AG	CORAF, WASP, WAAPP, APSP, AGRA	Continuous
Implement legal procedures for the establishment of a Seed Fund	MoFA, MoF, Parliament	PPRSD, NSC, NVRRRC, Seed Companies, NASTAG, DAES, DCS, MJ & AG	None	Lobbying and advocacy

**Table B:** Group 2 Presentation on Linkages of ISSD Africa to Ghana’s agricultural policy processes

	<b>Themes</b>	<b>Which Policy Maker?</b>	<b>Which Stakeholder?</b>	<b>Which Project?</b>	<b>Which Event?</b>
1	Seed Marketing	MoFA, MoTI, MoF	Private sector, MLGRD, FBOs	USAID-FtF-APSP, ATTP, WAAPP	Workshops, Esoko, Media events
2	Quality Assurance	MoFA (PPRSD-GSID, PPBD)	National Agric. Research Institutes (NARIs), SEEDPAG, GAIDA, NASTAG	USAID-FtF-APSP, WASP, UNIDO, AGRA, GIZ, ADVANCE	Training, Seminars, Workshop, Media events, ESOKO
3	Agronomic Practices	MoFA (DAES, DCS, PPRSD, PPBD), NARIs	FBOs, SEEDPAG, GAIDA, NASTAG	ISFM-AGRA, ADVANCE, CABI, WAAPP	Training, Demonstration farms
4	Informal Seed System	MoFA (DAES, DCS, PPRSD, PPBD),	FBOs, SEEDPAG, GAIDA, NASTAG	Nil	Training, Demonstration farms, Extension, Promotions
5	Enforcement of Regulations	MoFA (DAES, DCS, PPRSD, PPBD), Security Agencies	SEEDPAG, GAIDA, NASTAG	AGRA, WAAPP, WASP, ADVANCE	Training, Demonstration farms, Extension, Promotions
6	Seed Storage, Processing and Conditioning	MoFA (AESD, GLDB, PPRSD)	FBOs, NASTAG, SEEDPAG, GAIDA, Crop-Life, Universities, BNARI, PGRRI, Private sector	Agric. Technology Transfer (ATT), UASID – Post Harvest Loss – Innovation Labs,	Training, Demonstration farms, Extension,
7	Capacity and Access to WAXIS platform	ECOWAS, CORAF-WECARD, MoFA-ICT	SEEDPAG, GAIDA, NASTAG, FBOs	WAXIS, MoFA E-extension project	Training, Demonstrations, Websites,
8	Human Resource Capacity	MoFA, NARIs,			Training in Business Development, Academic courses

## Session 2

**Table C:** Group 1 Presentation on Concrete Entry Points for ISSD Africa

Sub-themes	Desired changes	Key Steps	Stakeholders/Partners	Possible support of ISSD Africa
Common challenges to promoting entrepreneurship in seed value chains	Improved infrastructure for research, processing, storage, irrigation and marketing	<ul style="list-style-type: none"> <li>Identify sector requirement</li> <li>Stakeholder consultations and recommendations</li> <li>Project and other implementation modalities</li> </ul>	MoFA (AESD, PPRSD, DCS), MoTI, GGLDB, MESTI (CSIR), Universities, GIPC, Banks, DPs, COTVET	Technical support, advocacy, human resource development
	Efficient information exchange	<ul style="list-style-type: none"> <li>Creation of a knowledge base</li> <li>Creation of dissemination channels and engagement platforms</li> </ul>	MoFA (DAES, SRID, E-Agric), Universities and other learning centres, seed sector actors, GIPC, media (print and electronic)	Provision of materials, training manuals, workshops and seminars, resource persons
	Improved access to institutional credit	<ul style="list-style-type: none"> <li>Advocacy and stakeholder dialogue</li> <li>Operationalize agreed recommendations</li> </ul>	GoG, CSOs, financial institutions, insurance companies, investors, GIPC, DPs, Bank of Ghana	Advocacy, consultancies

	Improved seed demand	<ul style="list-style-type: none"> <li>• Marketing studies to establish baselines</li> <li>• Tabling of results and recommendations</li> <li>• Linkage to improve policy framework</li> <li>• Linkage to field activities to improve GAPS</li> </ul>	DAES, DCS, NASTAG, farmers, media, input dealers, NARIs, GGLDB	Consultancies, capacity building,
	Strong and functional seed associations	<ul style="list-style-type: none"> <li>• Implementation of the private sector development component of the National Seed Plan</li> </ul>	MoF, NASTAG, NBSSI,	Capacity building
	Enhanced investment incentives	<ul style="list-style-type: none"> <li>• Development of position paper on investment incentives from the National Seed Plan and Investment Code</li> <li>• Lobbying in high places for rapid implementation of recommendations from the position papers</li> </ul>	GIPC, Financial institutions, Parliament	Consultancies

	Creation of seed business incubation centres	<ul style="list-style-type: none"> <li>• Research, consultation and agreement on modalities</li> <li>• Advocacy</li> <li>• Implementation and sponsorship by concerned entities</li> </ul>	NASTAG, MoFA, GIPC, NBSSI, Investors, Africa Agricultural Incubation Network (AAIN)	Consultancies, resource materials
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**Table D:** Group 2 Presentation on Concrete Entry Points for ISSD Africa

<b>Themes</b>	<b>Desired Change(s)</b>	<b>Key Steps</b>	<b>Stakeholders/Partners to be Involved</b>	<b>Possible Support of ISSD Africa (Non-financial)</b>
Access to variety in the public domain	Information on available material	<ul style="list-style-type: none"> <li>- Development and dissemination of fliers with passport data on varieties</li> </ul>	NARIs, MoFA, NASTAG, NGOs, CSOs, SEEDPAG, Aggregators, Industry, processors	<ul style="list-style-type: none"> <li>- Make available best practices</li> <li>- Technical support (e.g. electronic platforms)</li> </ul>
	Maintenance breeding for continues availability of desired varieties	<ul style="list-style-type: none"> <li>- Outsourcing under breeder supervision for reasons of contamination and resource constraints</li> <li>- Locating and acquiring of isolated sites for breeding</li> <li>- Strengthen the capacity of at the Germ Plasm Bank (PGRRI)</li> </ul>	Private seed producers, DPs, Universities, PGRRI, NARIs, Africa Seed & Biotechnology programme (ASBP)	<ul style="list-style-type: none"> <li>- Linkage to funding sources</li> </ul>
	Inadequate volumes of all classes of seeds	<ul style="list-style-type: none"> <li>- Contracting of private seed companies by NARIs</li> <li>- Introduce alternative technologies for seed conditioning and storage</li> </ul>	Africa Seed & Biotechnology programme (ASBP), NARIs, Universities, Private seed producers, private seed processing and distribution companies.	<ul style="list-style-type: none"> <li>- Technical support</li> </ul>
	Marketing and promotion of available varieties	<ul style="list-style-type: none"> <li>- Widespread demonstration plots</li> <li>- Free samples of seeds</li> <li>- Multimedia advertisement</li> <li>- Appropriate sized packaging material</li> </ul>	DPs, NASTAG, SEEDPAG, GAIDA, Media, NGOs, CSOs	Technical support, GAPS

