

## **CALL FOR CONSULTANCY TO CONDUCT A STUDY ON ADOPTION OF:**

- **Advanced vegetable production technologies by vegetable growers; and**
- **Practical extension methods by extension providers**

### **1.0 Introduction**

The Integrated Seed Sector Development (ISSD) Plus Project is a four-year project coordinated by Wageningen Centre for Development Innovation (WCIDI), Wageningen University & Research, and funded by the Embassy of the Kingdom of the Netherlands, Kampala. The project is implemented by Wageningen UR Uganda (WUU) in collaboration with the National Agricultural Research Organisation (NARO) for public varieties and food crops; and with the private sector for vegetable seed.

The programme aims to strengthen the development of a vibrant, pluralistic and market-oriented seed sector that is able to address key challenges that hamper seed sector development in Uganda. The ISSD Plus project has four components: a) addressing bottlenecks in early generation seed (EGS) and creating an enabling environment for the seed sector; b) enhancing the Quality Declared Seed (QDS) system through supporting Local Seed Businesses; c) promoting the uptake of quality seed; and d) promoting the use of advanced vegetable varieties.

The vegetable component of the ISSD Plus project aims to contribute to increased earnings and competitiveness of the vegetable sector, which would subsequently contribute to improved national food and nutrition security. The commonly identified major constraints to vegetable production and competitiveness of the sector both at local/regional and international markets include: limited access to and knowledge of improved varieties that are available in the market; lack of knowledge and skills in recommended agronomic practices; predominant use of low quality seedlings from field nurseries; high pest and disease pressure; poor water and fertilizer use; lack of market information on vegetable crops; inconsistency in vegetable product quality and supply; non-conformity to phytosanitary requirements; high production cost; and low productivity. Such constraints have led to a lower overall competitiveness of the Ugandan vegetable sector in comparison to neighbouring countries and inadequate supply and consumption of vegetables in Uganda.

Regarding the abovementioned constraints, the ISSD Plus interventions address the constraints to productivity and high production costs by promoting the use of improved vegetable varieties under advanced agronomic practices (high input-high output vegetable production systems).

The base line survey conducted by East-West Seed Company in Northern Uganda with 274 respondents indicated that 44% of the respondents were using improved varieties. The survey indicated that there were three major advanced agronomic practices used by the farmers and these included: normal weeding, spraying, and staking, accounting for 79%; 76% and 64% of the responses respectively. Other advanced practices used on a small scale included: pruning (14%), manuring (11%), nursery bed making (10%) and mulching (7%). The study revealed clearly that the majority of the farmers still relied only on traditional agronomic practices and often practiced rain-fed vegetable production.

### **2.0 Rationale for the Study**

The ISSD Plus interventions via the vegetable component focuses on promotion of advanced technologies including improved vegetable varieties and advanced low cost production techniques (proper transplant raising, spacing, trellising, pruning, effective spraying techniques, mulching, use of raised beds, and various moisture and soil conservation techniques). The promotion activities undertaken have been predominantly capacity building activities among extension service providers and vegetable growers through the following.

1. A vegetable training of trainers (ToT) programme offered to extension service providers to strengthen their extension skills and improve their hands-on skills in vegetable production. So far **118** sector professionals have been reached through the ToT programme; they are united in a platform of 'Vegetable brigadiers' namely the Uganda Vegetable Practitioners' Network

2. Seed company-led training sites where growers receive in-depth training on advanced production techniques following a selected crop cycle. To date, **23,265** farmers have been reached through the training sites.
3. Seed company-led variety demonstrations where farmers are invited to field days to evaluate and appreciate the characteristics of improved varieties and interact with staff of the responsible seed companies. So far, **17,218** farmers have been reached through the variety demonstration sites.
4. Radio shows, which included live talk shows with partner seed companies and pre-recorded messages and spot adverts. The estimated number of listeners reached through the radio programme is over **5,000,000**.
5. Training events which are organized by ISSD. At the training events, the ISSD skilled sector professionals train farmers on use of improved vegetable varieties and advanced low cost production techniques. To date 1,295 farmers have been reached through the training events.

The abovementioned activities have been conducted since 2017 in various districts within four regions of the country including: Central; North; East; and West. These activities were intended to cause and support vegetable growers to adopt the advanced technologies and ultimately increase their productivity and earnings from vegetables. However, the impact of these activities has not been empirically proven. Pattern/spread, intensity and rates of adoption are not known.

### **3.0 Purpose of this study**

- i. This study aims to assess and establish the adoption levels of improved vegetable varieties and advanced vegetable production techniques which have been promoted by ISSD Plus and its partners.
- ii. The study findings will inform the final evaluation of project in terms of impact among the targeted key stakeholders within the vegetable value chain.

### **4.0 Evaluation questions**

- i. To what extent have trained vegetable growers (from company-led training sites and ISSD Plus training events) adopted the promoted technologies, including advanced agronomic practices and use of improved vegetable varieties, by: number of adopting farmers; promoted technology; crop; specific technique; and location, and what is the total area under adopted vegetable technologies?
- ii. To what extent have variety demonstrations sites been effective in promoting variety awareness and uptake, by number of farmers aware of new improved varieties and their providers, and farmers purchasing quality vegetable seed?
- iii. What is the relationship between spread/pattern of adoption farmers and the location of ISSD Plus' supported training and variety demonstration sites?
- iv. What are the reported/purported factors that enhanced or hindered adoption of advanced agronomic practices and quality seed of improved vegetable varieties?
- v. What are the characteristics of adoption farmers (farmers that adopt most advanced agronomic practices and use quality seed of improved varieties)?
- vi. What are the costs and benefits of the advanced technologies versus previously used technologies for farmers involved in the ISSD Plus project?
- vii. What are examples of farmers with successful business cases?
- viii. To what extent have the Vegetable brigadiers contributed to the ISSDPlus vegetable extension program (farmer outreach)?
- ix. To what extent have the ISSD trained extension service providers adopted the ISSD Plus' and partners' extension methodology (use of practical training/ demonstration sites in their normal practices)? Any challenges in adopting the methodology?
- x. What is the impact of radios shows on variety adoption?
- xi. What are the purported factors that positively or negatively influenced this adoption?
- xii. What lessons can be learned for future initiatives in the vegetable sector?
- xiii. What are the key stories of change for the vegetable component of the ISSD Plus project (at least 5): for selected adoption farmers and for selected extension service providers?

## **Methodology of the adoption study**

The consultant(s) / researcher(s) shall develop a study proposal that includes:

- 1) A technical proposal including:
  - a. A conceptual framework for studying 'adoption' (including definitions and theoretical/ conceptual framework). Also the overall evaluation approach is to be described, and may include theory-based approaches (to be explained).
  - b. A detailed methodology including methods and approaches for data collection and analysis, by evaluation question and related indicators. Also the sampling frame needs to be provided, including the statistical underpinning for sample size / representativeness of the study.
  - c. An all-encompassing and detailed analysis of:
    - responses to above mentioned evaluation questions
    - numbers and characteristics (including at least age, religion and gender, source of knowledge about the promoted technologies; neighbor, extension officer, radio, ....., level of education and others ) of adoption farmers, technologies adopted and relationship between adoption spread and location (on a map) of the promotional sites (training and variety demonstration sites)
    - adoption rates crop wise for at least four crops (tomato, cabbage, onion and pepper)
    - factors purportedly influencing adoption of technologies by farmers
    - factors purportedly influencing adoption of technologies methods by extension service providers
    - costs versus benefits of advanced technologies versus originally used technologies
  - d. A detailed work/activity plan including the interviews with selected growers, input suppliers and traders both in the urban and upcountry
  - e. CVs of team members and a report of a relevant past assignment in the vegetable or agricultural sector as an example of previous work.
- 2) A financial proposal.

## **Time frame**

In table 1 the timeline for the study is described for the specific activities. Proposals are requested to be submitted to [hr@issduganda.org](mailto:hr@issduganda.org) not later than 8<sup>th</sup> of May, 2020.

<b>Key activity</b>	<b>Timing</b>	<b>Responsible personnel</b>
<b>Call for proposals</b>	9 <sup>th</sup> March	ISSD Plus
<b>Submission of proposals</b>	By 8 <sup>th</sup> May	Applicants
<b>Review /selection of proposals</b>	By 11 <sup>th</sup> May	Selection Committee
<b>Presentation by 3 short listed applicants</b>	12 <sup>th</sup> May	
<b>Contracting</b>	By 14 <sup>th</sup> May	ISSD PLUS
<b>Inception report</b>	18 <sup>th</sup> May	Consultant
<b>Field work</b>	19 <sup>th</sup> May -5 <sup>th</sup> June	Consultant
<b>Data Analysis</b>	By 12 <sup>th</sup> June	Consultant
<b>Submission of draft report in preparation for presentation</b>	15 <sup>th</sup> June	
<b>Presentation of Draft report</b>	16 <sup>th</sup> June	Consultant
<b>Submission of Final report</b>	19 <sup>th</sup> June	Consultant

**Table 1 Time frame**

### **Competences and team composition**

The team of consultants should have;

- ✓ proven experience and skills (of especially the team leader) in conducting this type of evaluations/research/studies
  - ✓ experience and skills in conducting agriculture related evaluations
  - ✓ experience in the vegetable sector
  - ✓ similar work done in the last 5 years
  - ✓ experience with economics, quantitative survey instruments and data analysis
- the team should demonstrate clear understanding of the ToR, and the ISSD Plus project.

## **Terms and conditions**

Consultant(s) / researcher(s) are requested to come up with a proposal that addresses the above-mentioned evaluation questions and methodological approach. The consultant(s) / researcher(s) can deviate from the above approach and methodology, providing sensible arguments, as long as the overall objective of the study is being honored.

## **Deliverables of the study**

1. Inception report/proposed survey approach and financial proposal (basis for disbursement of first instalment)
2. Consultancy report of 80-100 pages (max 30-50 pages for the main text, rest in annexes) including:
  - Introduction to the vegetable component in the ISSD Plus project
  - Methodology
  - Findings: by evaluation question
  - Key lessons learned for future vegetable initiatives
  - Conclusions and suggestions for the way forward
  - Annexes

## **Proposal selection criteria**

For proposal selection we will use the criteria as elaborated in table 2.

**Table 2 Proposal selection criteria**

<b>Parameters for Evaluation of adoption study</b>	<b>Max score</b>
<b>A. Qualification (40)</b>	
<b>Proven experience and skills (of especially team leader) in conducting this type of evaluation/research/study</b>	10
<b>Proven experience and skills in conducting agriculture related evaluations</b>	10
<b>Proven experience in vegetable sector</b>	10
<b>Similar work done in the last 5 years</b>	5
<b>Experience with economics, quantitative survey instruments and data analysis</b>	5
<b>B. Technical proposal (35)</b>	
<b>Understanding of the ToR - The proposal refers sufficiently to the objectives of the adoption study and other requirements as mentioned in the ToR</b>	5
<b>Understanding of the vegetable component of the ISSD Plus project</b>	5
<b>The proposed evaluation methodology is suitable to address the evaluation questions and meets the objectives of the adoption study</b>	5
<b>The proposed evaluation methodology and approach are elaborated sufficiently and clearly described for each evaluation question</b>	5
<b>The quality of writing the proposal is clear and to the point. There is adequate experience with report writing (reference to other reports and publications).</b>	5
<b>The quantitative sampling frame proposed includes farmers across all ISSD Plus supported zones, and is statistically underpinned</b>	5
<b>The work plan proposed mirrors the timeline of deliverables in the ToR and is feasible and sufficient to produce the deliverables</b>	5

<b>C. Quality and relevance of previous comparable assignments (10)</b>	
Quality and relevance of a report of a past assignment in the vegetable or agricultural sector	10
<b>D. Financial proposal (15)</b>	
The budget is worked out in terms of calculated days, rates and activities. The budget has distinguished senior, medior and junior activities. Costs are realistic and do not exceed the thresholds in terms of daily rates and total budget available.	15
<b>Total</b>	<b>100</b>

### How to apply

Interested firms or individuals should submit their technical and financial proposal with three reference clients' email and telephone contacts to [hr@issduganda.org](mailto:hr@issduganda.org) not later than 8<sup>th</sup> May, 2020.