

**Document for Proposal  
to Strengthen Existing Tissue Culture Laboratory for the Production of  
plantlets of High Value Horticultural Crops. (Package No. GD/Hortex/57/2013-14).**

**A. Background**

National Agricultural Technology Project (NATP) under Ministry of Agriculture (MoA) funded by the World Bank (through IDA credit) and International Fund for Agricultural Development (IFAD) & GoB. The Supply Chain Development Component (SCDC) as one of the components of this project is implemented by Hortex Foundation since October 2008. It covers 20 Upazilas namely Comilla Sadar, Chandina, Savar, Bogra Sadar, Shibgonj, Mirsarai, Belabo, Shibpur, Jessore Sadar, Jhikorgacha, Parbotipur, Sreemongal, Delduar, Kapasia, Kaliakoir, Birgonj, Pirgonj, Boraigram, Singra, Trishal, under thirteen districts. The development objectives of this component are to integrated small and marginal farmers agro business enterprise into modern supply chain by promoting more equitable change governance and market linkages of high value agro commodities such as fruits, vegetables, flower, dairy, meat and fish. The project works through Common Interest Group (CIG) in 20 Upazilas and each group comprises of 20 farmers. This component works in close co-operation with the Department of Agriculture Extension (DAE), Department of Livestock Services (DLS) and Department of Fisheries (DOF) under the Project Co-ordination Unit (PCU). Major activities of the component include (a). Increase productivity of targeted commodities. (b). Improvement of post harvest management to reduce loss. (c). Strengthening farmer market linkage. (d). Knowledge management of the difference stock holders. (e). Promotion of contract/ group farming and (f). Development of entrepreneurs.

**B. Purpose/ Objective:**

Hortex Foundation plans to strength selected tissue culture laboratory/s by providing equipments, chemicals, glassware, greenhouse etc and training on human resource facilities to increase the production capacities of plantlets of high value crops such flower & Fruits. The plantlet will be given to Common Interest Group (CIG)/Non Common Interest Group (Non CIG) farmers in the project site to improve the productivity and quality of targeted crops.

**C. Nature & Mode of support:**

We like support to strengthen one or more laboratories with the following items:

**1. Equipments & Appliances:**

- a. Laminar Air Flow Cabinet, b. Hot Bead Sterilizer, c. Autoclave, d. Analytical Balance, e. pH Meter, f. Orbital Shaker, g. Water Distillation/ De-ionizing Plant, h. Micropipette, i. Microscope, j. Refrigerator, k. Air conditioner, l. Generator, m. Microwave Oven

**2. Chemicals:**

Potassium Nitrate, Ammonium Nitrate, Potassium Dihydrogen Phosphate, Calcium Chloride, Magnesium Sulfate, Sodium EDTA, Manganese Sulfate, Ammonium Sulfate, Tri-calcium Phosphate, Myo-inositol, 6-Benzyl Amino Purine, Kinetin, Gibberellic Acid, Indole 3-Butyric Acid, Indole 3-Acetic Acid, Naphthylene Acetic Acid, Adenine Humic Sulfate, Ethyl Alcohol, Agar Powder, etc.

**3. Glassware:**

Culture vessel (low cost empty pickle jars), Reagent Bottles, Conical flasks, Measuring Cylinders, Petridishes, Beakers, etc.

**4. Small Green House renovation of existing one/Establishment of new one.**



## D. Market Demand:

Producing quality plantlets as per requirement of some targeted crops will be the major task. The selected organization should study the demand of tissue culture plantlets of different crops such as flowers, Banana & Papaya etc and should conduct demonstrations to see the performance of these plantlets in farmer's field. However, the initial market analysis reveals that the market size of above commodities per year may be as follows:

Sl. No.	Name of the crop	Targeted Production
01	Gerbera	±50,000
02	Orchid	±1,00,000
03	Rose	±40,000
04	Chrysanthemum	±5,000
05	Gladiolus	±1,000
06	Anthurium	±10,000
07	Lilium	±10,000
08	Carnation	±5,000
09	Gypsophila	±25,000
10	Banana	±10,00,000
11	Papaya	±2,00,000

## E. Procedure for Proposal submission:

The interested organizations are requested to submit a list of their requirements along with item wise price as per table given below. Their needs should be focused on the basis of producing plantlets of targeted crop varieties as mentioned by Hortex Foundation. Hortex Foundation will extend full support or cost sharing support mainly for laboratory materials, small green house, training and other relevant materials which will also be settled by mutual understanding. A Contract Agreements will be signed with the selected organization to clarify the mode of support.

## List of Requirements:

Sl. No.	Item Name.	Quantity	Detail Specification	Unit Cost	Total Cost	Justification
			Attached another page			
				Grand Total=		

## F. Fixing Prices:

The price of plantlets will be fixed through discussion between Hortex Foundation and the partner organizations. The process of price fixings plantlets will be periodically reviewed based on mutual understanding between Hortex Foundation and partner organizations.

## G. Evaluation Process/ Selection Process:

### General:

1. Current year's Trade License, VAT Registration Certificate, Income Tax Clearance Certificate, Bank Solvency Certificate from any scheduled Bank, Experience Certificate of similar nature of works,
2. Status of the lab including the list of major equipments
3. Detail of the green house (if there are any).
4. List of products and their market status (last 3 (three) years).





5. Proposed production and market plan of different plantlets for the next 3 (three) years.
6. List of items along with required quantity and budget for strengthening lab.
7. Annual turnover of the company for the last 3 (three) years.
8. Audit report of last 3 (three) years.

### **Key Staff Experience:**

- a. **Manager or Chief Scientist:** Minimum Masters degree in Agriculture/ Botany/ Biotechnology with at least 3 (three) years working experience with a commercial tissue culture lab. Publication with any of the target crop mentioned with this schedule will get extra preference.
- b. **Technician:** At least Science graduate with 3 (three) years working experience in a commercial tissue culture lab.

A model of Contract Agreements has been given with this schedule.

### **Model of Contract Agreements**

This Contract Agreements is signed between the Director, SCDC & MD, Horticultural Export Development Foundation (HORTEX) – first party located at Sech Bhaban, 22 Manik Mia Avenue, Sher-e-Bangla Nagar, Dhaka – 1207 and ----- second party located at -----.

Hortex is now implementing Supply Chain Development Component (SCDC) of the National Agricultural Technology Project (NATP) in close collaboration with the Department of Agriculture (DAE), Department of Livestock Services (DLS) and Department of Fisheries. At present the activities of SCDC is being implemented in 20 selected Upazilas of 13 districts. The supply of quality plantlets at the project sites or elsewhere will improve the quality and productivity of the targeted crops. Special emphasis of flowering plants to promote agribusiness of the Common Interest Groups (CIGs) of the small and marginal farmers of the afore said upazilas.

Responsibilities of first party and second party are appended below:

#### **Responsibilities of First Party:**

1. Provide Support to produce quality plantlets of targeted horticulture crops as per accepted proposal.
2. Procure and supply required items as per agreed specification
3. Help in preparing a production plan of plantlets as per demand of the farmers of the project site.
4. SCDC official help in marketing the tissue culture plantlets of targeted crops facilitating the farmer's linkage.
5. Visit the tissue culture lab as and when necessary to monitor the plantlets production related activities.
6. Assist the second party in setting up laboratory with supplied equipment as per requirement of the second party.
7. Impart train to the technical persons of tissue culture lab for improvements of their capacity through hiring of short terms consultant. (if needed).
8. Arrange farmers visit to the lab to build confidence of the farmers.
9. Arrange by monthly meetings between Hortex Foundation and the second party to review the progress of works as per contract agreements.

#### **Responsibilities of Second Party:**

1. Strengthen the tissue culture lab by receiving the required items from the first party.
2. Prepare production plan with the help of first party.
3. Agree to produce plantlets of selected horticulture crops / varieties through mutual understanding of the both parties.



- 6. Develop pilot projects of new crop varieties; at least 1000 plants of each variety will be in the pilot project. The crop varieties, location of pilot project, etc will be finalized by mutual understanding.
- 7. A marketing strategy plan will also be made by mutual understanding of two parties.
- 8. Cooperate in arranging farmers visit at the lab and green house, as the part of confidence building.
- 9. Submit a progress report of the works at the end of each month.
- 10. Recognize Hortex Foundation as a supporting organization in their brochures, leaflets, posters, etc.
- 11. Agree to comply any other task pertaining to tissue culture plantlets production and supply as per need of the first party. (if needed)

Normally, either party may terminate the contract by giving thirty days written notice in advance to other party. However, if termination is resulted from breach of any contents of the contract, the second party will remain liable to pay compensation to the first party in the form 100% at first year and following years, the compensation will be reduced by 10% each year of the total amount of procurement costs of agreed items within forty five days of notice served by the first party. In default of payments of compensation, the first party may take legal action against the second party.

In addition to the above, both parties agree that any constrain arises faced in the production and marketing will be discussed between first party and second party, so as to find out a workable solution.

This Contract Agreements will become effective upon signing and remain valid for the period of five (05) years.

Signature  
**Name:**  
**Managing Director**  
**Hortex Foundation**  
 Sech Bhaban, 3<sup>rd</sup> floor, Western side  
 22 Manik Mia Avenue  
 Sher-e-Bangla Nagar, Dhaka – 1207.  
 Date:  
 Place:

Signature  
**Name:** -----  
**Managing Director/CEO/ ---**  
 -----  
 -----  
 -----  
 -----  
 Date:  
 Place:

Witness:  
 Signature:  
 Name:  
 Designation:  
 Date:

Witness:  
 Signature:  
 Name:  
 Designation:  
 Date:

