



## **IIUM COMMUNITY GARDEN GUIDELINES**

### **INTRODUCTION**

This IIUM Community Garden Guidelines were created to serve as a reference for IIUM communities to plan and propose any type of community garden activity to be carried out on IIUM campuses. This document outlines the basic technical requirements for community gardens to be operated or operating on IIUM campuses. It is also intended to inform and assist IIUM community to better understand design considerations for the development of a community garden. It outlines the minimum requirements for community garden as well as provide other considerations that would further support the operation of community garden activities on IIUM campuses.

This document outlines site selection, garden types, plant types, infrastructure components and garden management considerations.

This document is a basis for Development Division to evaluate community garden proposals submitted for approval. Other components that are not specified in this document are subject to interpretation and discretion of the Development Division.

### **DEFINITION OF COMMUNITY GARDEN**

A community garden is a shared, semi-public space where people get together to share the effort of cultivating a garden for the purpose of growing fruits, vegetables, or flowers, among other things. There can be major variations in the way each community garden is set up and maintained. The gardens give a variety of benefits to the surrounding community as well as the environment. They provide opportunities for engaging with healthy outdoor activities and healthier food choices to the communities.

Community gardening is a benefit-sharing activity through collaborative engagement. The following are among the benefits that can be derived from the activity:

- a. Beautifying the University

Vacant area could be utilised to create a community garden. A well-planned community garden has the potential to transform formerly vacant ground into a lush green plant-

filled environment. It may transform an area into an attractive garden that may enhance and improve the university's ambiance.

b. Fresh and Healthy Produce

Through healthy and responsible gardening practices, the community garden can provide healthy, fresh, and nutritious produce to the IIUM community.

c. Cleaner Environment

A community garden may integrate composting activities, converting plant waste such as leaves and tree trimmings into valuable fertiliser that can contribute to a cleaner environment.

d. Healthy Lifestyle

Community gardening provides an opportunity for the IIUM community to get some fresh air and healthy outdoor exercise. Additionally, they provide an enjoyable retreat and aid in stress relief after a long day at work.

e. Stronger Sense of Community

Sharing a community garden offers the IIUM community a chance to communicate with each other. People who participate frequently feel more personally connected to their communities, developing a sense of ownership and community spirit.

f. Educational Opportunities

Participating in a community garden provides an essential introduction to environmental issues, work skills, and business principles for the IIUM community.

## **CATEGORY OF COMMUNITY GARDEN AREA**

There are several categories of areas that might be considered for community gardens activities.

**a. Building Courtyard**

A building courtyard or court is a circumscribed space open to the sky, and the area is often enclosed with a building or complex.

**b. Building Perimeter**

Building perimeter refers to the green spaces surrounding the building.

**c. Building Corridor**

A building corridor refers to a corridor or hallway of the building.

**d. IIUM Green Space**

Any other green areas that are deemed suitable to be used for community garden activities.

**TYPE OF GARDEN**

There are several types of garden that could be considered to be carried out. Each type has its own significance, characteristics, and approach.

**a. Hydroponic**

Hydroponics is defined as "the cultivation of plants in water." It is a method of growing plants in the absence of soil. The roots acquire balanced nutrients dissolved in water that meet all of the plant's developmental requirements with this method. It also referred to as soilless plant cultivation.

**b. Potted Garden**

Pots come in a range of materials. Terracotta or plastic pots would work equally well. Alternatively, a bushel basket, a wooden box, or a recycled container can be used. Potted gardens have commonly opted for paved areas.

**c. Raise Ground Bedding**

Raise ground bedding is the term used to describe the temporary planting of fast-growing plants in flower beds to produce vibrant, seasonal displays. Annuals, biennials, delicate perennials, and succulents are the most often planted plants in beds. It is easily constructed by producing flap-topped mounds that are typically six to eight inches high.

**d. Framed Bedding/Supported Raise Bedding**

Frame bedding refers to freestanding beds constructed above the natural ground. The planting area is raised above the existing soil level and usually enclosed within a structure to form a planting bed. A framework of wood, stone, brick, or plastic can be used to make this elevated bed.

**e. Polly Bag**

Polly bags are adaptable, simple to manage, and appropriate for use in a variety of settings.

**f. Trellis and Support**

There are different types of trellises or support that can be used to grow vegetables vertically such as bamboo, timber, metal, wire mesh, wire rope, or other suitable materials.

**g. Green House**

A green house is a structure with walls and a roof made of transparent materials such as plastic or glass which houses plants that require regulated climate conditions to grow.

**h. Aquaponic**

Aquaponics is a method of cultivating fish and vegetables that is both sustainable and environmentally friendly. This method of agriculture is capable of producing significantly more food with significantly less water, land, and labour than traditional agriculture.

**i. Fish pond**

A fish pond is a controlled pond that has been stocked with fish for the purpose of aquaculture and fish farming.

**j. Bees Farming**

Bee farming or apiculture is the practice of maintaining bee colonies, most typically in man-made hives. This farming is done to raise bees for the purpose of collecting honey and other goods produced by the hive such as beeswax, propolis, flower pollen, bee pollen, royal jelly, and pollinating crops.

## **IMPLEMENTATION GUIDELINES**

This section discusses the implementation guidelines for the IIUM community garden.

### **PROPOSED SITE LOCATION**

The proposed site location refers to the area selected for gardening activity on IIUM campuses. Applicants shall submit the proposal for the selected area to the Development Division for approval at least one month before the gardening activity is targeted to begin. Areas within IIUM campuses shall not be used for community garden without the Development Division's approval.

The submission of the proposed site area shall include, but not limited to, the following items:

- a. Key plan showing the proposed site's location on a printed IIUM master plan or Google Map of IIUM.
- b. Demarcation of the gardening area at 1:100 scale
- c. Category of the garden area

### **COMMUNITY GARDEN ACTIVITIES**

The community garden refers to gardening activities conducted by a group of IIUM staff or students or by any organisation or communities approved by the University. The community garden's activities include propagating appropriate vegetables and herbs, maintaining the plants, harvesting and selling the produce, and clearing and rehabilitating the areas. Community gardening activities shall not be undertaken without the Development Division's approval.

### **SELECTION OF PLANTS**

Plant selection for gardening activities is limited to vegetables and herbs that are suitable for the proposed gardening areas described above. However, any species deemed suitable for the location may be proposed for approval from the Development Division.

## **SOURCE OF WATER**

There are three sources of water that could be used to irrigate the gardens.

### **a. Natural Resources**

Streams, rivers, lakes, and ponds are natural water resources that are dependent on runoff from surrounding land. Electrical or engine water pumps can be used to transfer water to the gardening area for irrigation.

### **b. Rainwater Harvesting**

Rainwater can be collected directly from building roofs or open areas and stored in a concrete cistern, fibreglass or polyethene tank, water silo, or other holding tanks. Harvested rainwater can be utilised only for irrigation and gardening purposes.

### **c. Municipal Water**

Municipal water refers to the current water supply to IIUM's facilities. Rubber hoses or other suitable materials can be used to transfer water to gardening areas for irrigation. Permanent water piping tapping shall not be permitted without the Development Division's consent.

## **IRRIGATION SYSTEM**

There are three types of irrigation systems that can be considered for the IIUM community garden.

### **a. Water Tap**

Water tap refers to any existing water tap point located within the buildings, or to any water tap located within the IIUM green area. Water can be transported to planting areas using a rubber hose or any other suitable material. The extension of a new water tap shall not be permitted without the Development Division's approval.

### **b. Drip**

Water drip irrigation systems can be used by using water from the building's water supply, water harvesting, or natural resources. An electrical pumping system for water drip irrigation system is allowed to be used at the gardening areas within the building courtyards and building perimeters. Engine pumping system can be used at other IIUM green areas.

**c. Sprinkler**

A sprinkler irrigation system can be used in a suitable IIUM green area. The water spreading radius of the sprinkler shall not exceed beyond gardening areas. Sprinkler systems are not allowed to be used for gardening areas within building courtyards and building perimeters.

**FERTILISER**

Three types of fertiliser are recommended to be used for the community garden.

**a. Organic**

Organic fertilisers can be used for gardening activities within a suitable amount. The application of organic fertiliser at the building courtyard and building perimeter areas shall be controlled to avoid unpleasant odour to the areas.

**b. Inorganic**

Inorganic fertilisers include urea, ammonium sulphate, calcium ammonium nitrate, phosphate rock, superphosphates, ammonium phosphate, potassium chloride, potassium sulphate, and compound fertilisers such as NPK, NP, and PK. The use of inorganic fertilisers should be kept to a minimum and according to proper usage to avoid runoff that could pollute the environment. Gardening activities conducted in areas other than building courtyards and perimeters are encouraged to use organic fertiliser whenever possible.

**c. Compost Waste**

Gardening activities are encouraged to use organic waste compost from natural or mechanical composting processes, such as leaves and vegetable scraps, in order to move ahead toward more natural and healthy food production methods.

**GARDEN BUILT STRUCTURE**

Garden-built structure refers to any new structures that are being built for gardening reasons. No structure of any kind shall be erected without the Development Division's prior approval. Among the structures that are frequently used for gardening purposes are the following:

- a. Water tank
- b. Storage building
- c. Green house.

## **GARDEN MANAGEMENT**

Gardening activities shall be conducted and managed by a group of IIUM staff or students, or by any organisation or communities, or a combination of groups, approved by the University. This group shall be referred to as Garden Development Team. Individuals are not allowed to engage in any gardening activity on the IIUM campuses.

Garden Development Team approved by the University is responsible for its gardening activities such as site preparation, plant propagation, harvesting produce, maintaining the area in the best possible condition, replanting, and rehabilitating the area if the group decided to discontinue the activities.

Prior to the initiation of any gardening activity on IIUM campuses, proposals for gardening activities shall be submitted to the Development Division for approval. At all times, Garden Development Team shall ensure that its activities will not have a negative impact on the IIUM campus's environment or community. Garden Development Team shall take all reasonable measures to ensure that gardening activities are kept tidy and will not degrade the areas' aesthetic views.

The Development Division may at any time issue a Stop Work Order should the gardening operations do not adhere to the approved proposal or for any other reason stated by the University. Every six months, the gardening group shall submit an activity report to the Development Division for record-keeping and monitoring purposes.

## **COST IMPLICATION**

All of the cost of developing and constructing the garden including all services and infrastructures in conformance with the approved proposal shall be borne by the Garden Development Team. The cost shall include labour, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution, completion, and operation of the garden, whether temporary or permanent and whether or not incorporated or to be incorporated in the garden project.

## **PROCEDURE FOR COMMUNITY GARDEN DEVELOPMENT**

All community garden activities shall obtain approval from the Development Division prior to commencement on site. Proposed activities shall be submitted to the Development Division at least one month before the activities targeted to take place.

A proposal for approval shall be submitted by a group of at least five members from the staff or students of the IIUM, or from any organisation or communities approved by the University.



The IIUM Community Garden Evaluation Team will evaluate applications based on the following criteria:

- a. Site selection
- b. Type of garden
- c. Type of plants
- d. Built structure (if any)
- e. Watering/irrigation method
- f. Fertilising
- g. Garden management and maintenance strategy
- h. Rehabilitation strategy

Once the applications have been reviewed and evaluated, the Development Division will notify and provide feedback to the proposed community garden applicants. The Development Division will grant permission to operate the community garden, which will be reviewed annually.

All applications will be reviewed and evaluated, and decisions and feedbacks will be conveyed to applicants within a month from the date of the applications received by Development Division.