

# CITY FARMERS MAKE SEOUL GREENER AND HEALTHIER

Urban agriculture policy and best practices of Seoul

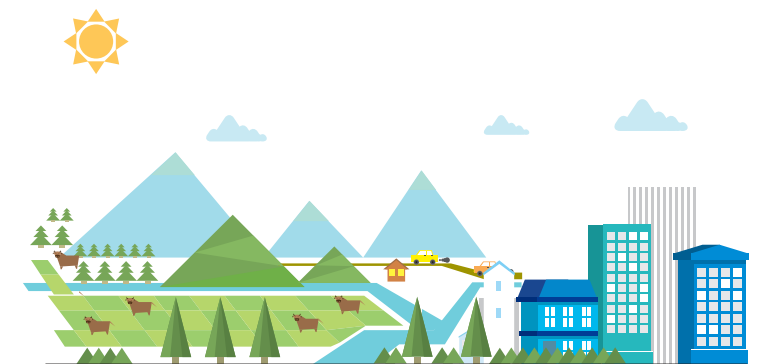




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### What is urban agriculture?

Urban agriculture refers to farming activities by using a diverse range of spaces in urban centers. It realizes multifaceted values including preservation of bio-diversity of agriculture, climate control, cleaning of the atmosphere, preservation of soil, culture of community, cultivation of sentiments, supporting leisure activities, education and welfare, etc. in urban centers, and executes the functions of sustainable cities and farmers.



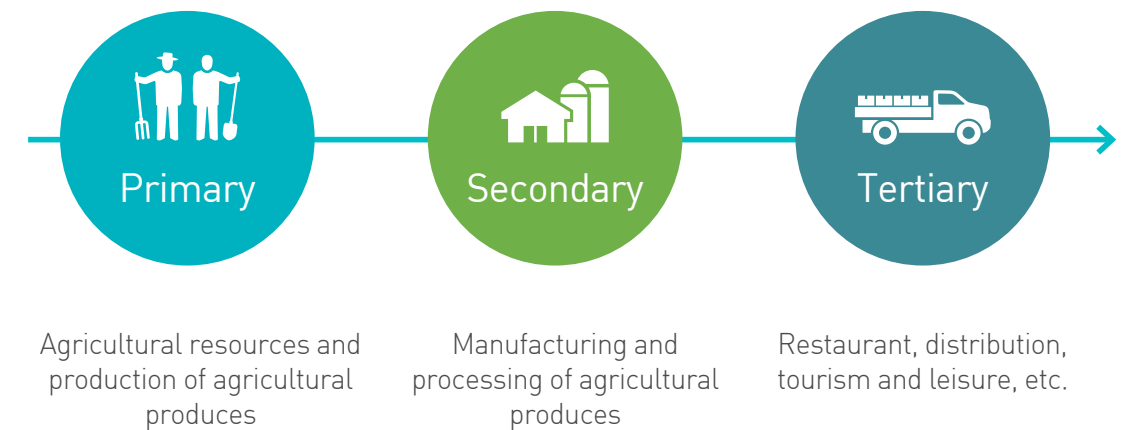


## IMPORTANCE OF URBAN AGRICULTURE

## Building up of green infrastructure for sustainable city

In the major cities of the world, urban agriculture is receiving attention as an alternative for the resolution of the environmental problems induced by urbanization and industrialization, which are incurring astronomical costs.

6th Industry primary x secondary x tertiary



### \* What is the 6th industry of urban agriculture?

Urban agriculture generates new products and markets, thereby elevating the added value and creates employment opportunities through the convergence of the primary, secondary and tertiary industries.

Urban agriculture is a future industry capable of creating green spaces, recycling of resources and green employment opportunities.

## Compliance with the desires of the people for conversion into green spaces

The total area of urban agriculture in Seoul is quite insignificant at 1.18km<sup>2</sup>, which is approximately 0.2% of the land area of Seoul. The area of urban agriculture is 0.11m<sup>2</sup> per person, which is equivalent to 0.7% of the land area of parks.

### Results of the survey on urban agriculture

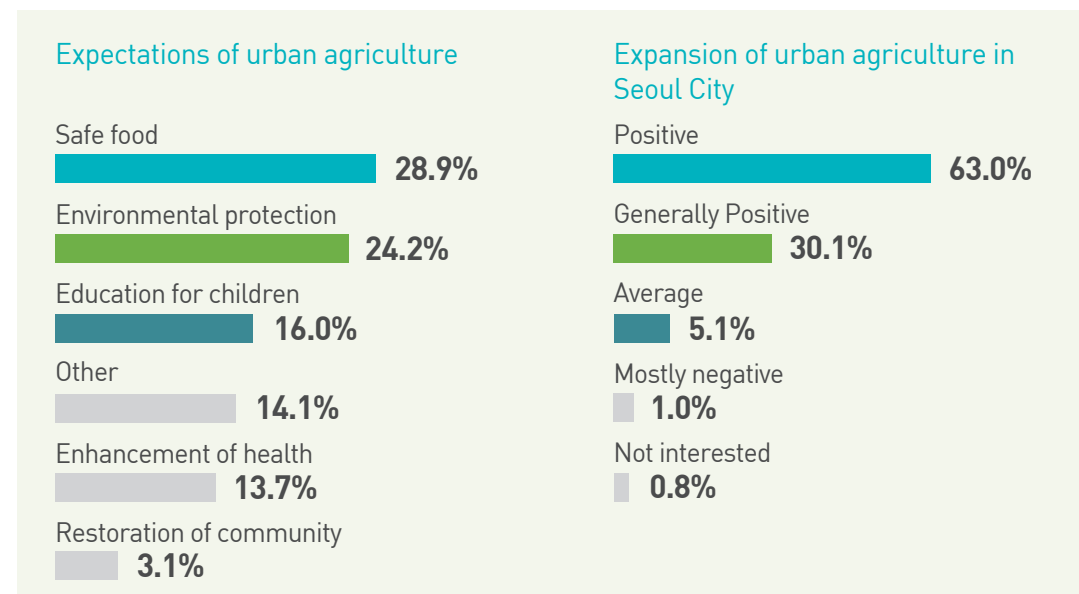
#### 1) Expectations of urban agriculture

- Survey period : 2013. 7. 1. ~ 10. 5.
- Surveying organization : Citizens Advisory Council on Urban Agriculture
- Subjects of survey : Citizens of Seoul (389 participants and 389 non-participants of urban agriculture)

Self-sufficiency for healthy and safe food was the most frequent answer as an affirmative element of urban agriculture, followed by enhancement of health, education for children, restoration of community and environmental protection, all of which displayed similar frequencies.

#### 2) Opinions on the expansion of the urban agriculture project in Seoul

In the survey of the participants in urban agriculture, 93.1% of the respondents answered positively to the "Expansion of urban agriculture in Seoul city."



## Solving urban problems by using the "pluralistic functions" of urban agriculture



### Social function

- Restoration of communal culture
- Productive leisure activities
- Healing of mind and body, relieves stress
- Venue for communication amongst family members and neighbors



### Environmental function

- Alleviation of the phenomenon of urban heat island
- Alleviation of global warming
- Recycling of resources and environmental protection
- Restoration of urban ecosystem



### Economic function

- Provision of healthy food
- Establishment of foundation for green economy
- Generation of green employment opportunities

## Preparation for aging society

Urban agriculture is an industry that greatly contributes towards the generation of employment opportunities for the elderly in an aging society.

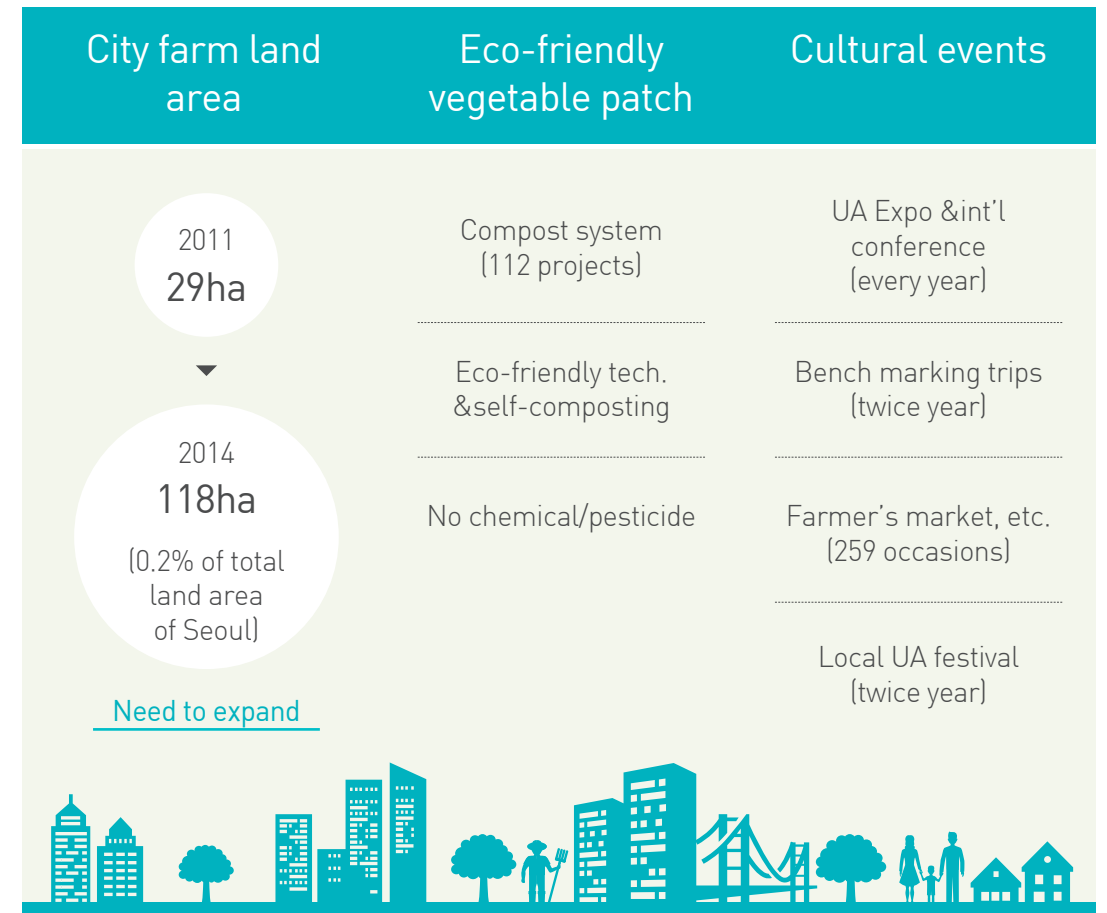
Maintenance of health through regular exercising and the secretion of happiness hormone (serotonin) due to cultivation of agricultural produce.

Makes contribution towards the formation of "communal culture for the elderly" by providing a venue for communication to elderly people.



## VISION AND GOALS OF SEOUL URBAN AGRICULTURE

## Seoul urban agriculture vision 1.0 (2012~2014)



### Declaration of the first year of Seoul urban agriculture

1. We shall strive to establish a minimum of more than 3.3m<sup>2</sup> of area for urban agriculture per household by converting the leftover pieces of land in our surrounding into vegetable patches.
2. We shall establish the environment in which anyone can easily receive education on and practice urban agriculture by expanding the educational facilities for urban agriculture including the support centers for urban agriculture, etc.
3. We shall make contribution towards the restoration of neighborhood communities where people live in harmony with neighbors by cultivating and supporting the establishment of voluntary grass root organizations for urban agriculture.

# Seoul urban agriculture vision 2.0(2015~2018)



Healthy and safe food for my family and myself



Restoration of communication and community for neighbors and neighborhood



Regeneration of city and coexistence of city and farming villages

## Goals

Citizens initiate securing of activity spaces

Restoration of community and expansion of social benefits function

Generation of employment opportunities through the cultivation of future industry

Coexistence of city and farming village and recycling of resources

## Tasks

- Establishment of foundation for urban agriculture
- Improvement of urban environment













- Activation for urban communities
- Expansion of socially beneficial functions

- Cultivation of social enterprises
- Generation of green employment opportunities

- Activation of exchange between city and farming village
- Conversion of food waste into compost



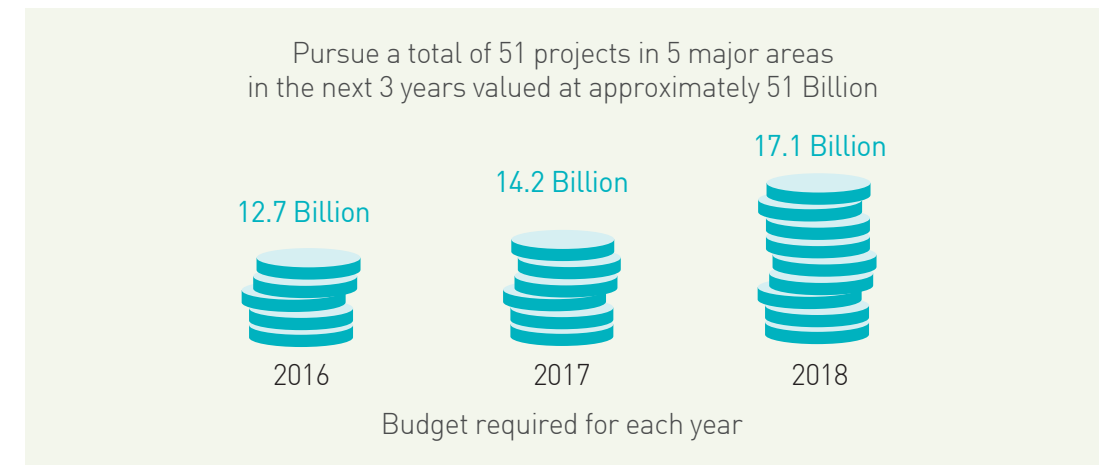
# Policy direction for Seoul urban agriculture

Categories	Urban agriculture 1.0 ('12~'14)	Urban agriculture 2.0 ('15~'18)
Key project direction	Focus on the securing of space for farming (quantity) 	Urban agriculture that citizens are content with (quality) 
Representative types of urban agriculture	Weekend farm type for family unit in the vicinity of Seoul 	Urban center vegetable patch in the vicinity of the residential life zones 
Goals of urban agriculture activities	Hobby and leisure type urban agriculture 	Activation of communal culture and healing type 
Method of selection and establishment of vegetable patch	Government-initiated selection 	Civilian-government governance format 
Crops being cultivated	Cultivation of limited range of crops 	Diversification of crops and pursue economic values 
Promotions	Regimental and passive promotion 	Creative promotion using a diverse range of media 

# Administrative Issues

## 1. Securing of the budget

Pursue harmonious works by reflecting the budgets required for each of the detailed projects in the area of urban agriculture.



## 2. Fortification of the functions and organizations for Urban Farming Division

Newly establish Urban Farming Division at the Seoul City Hall in order to pursue the urban agriculture works that are being expanded every year more efficiently ('15.7.31.), and establish and pursue mid to long-term means of supplementing the manpower including the continuous employment of new staffs.





## CURRENT STATUS OF THE PURSUIT OF URBAN AGRICULTURE

## Establishment of space for the practicing of urban agriculture

### Direction of pursuit

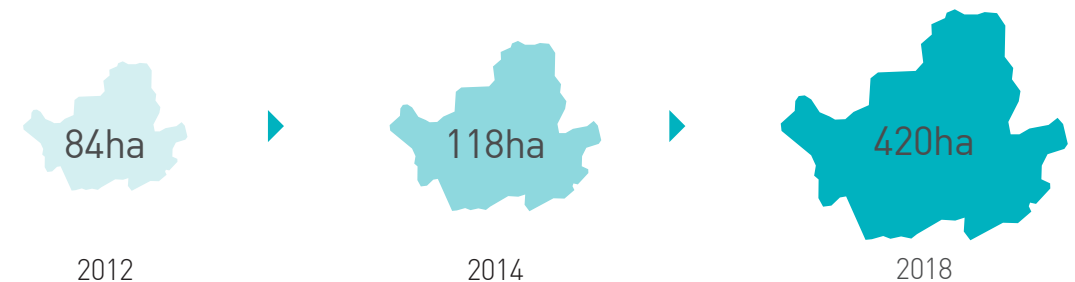
Weekend farm type for family unit mostly in the outlying area of Seoul with the hobby and leisure as the main purpose (established and operated by the government)



- 1 Improve the accessibility through the establishment of communal vegetable patch in the vicinity of daily life zones
- 2 Pursue diversity and creativity in the crops cultivated and the space
- 3 Improve the urban environment through the excavation of land that is unattended such as abandoned land and waste dumping grounds
- 4 Presentation of recourses recycling type and future type (vertical farm) models
- 5 Induce establishment by government and operation by civilians for the weekend farms

### Goals being pursued

Five-fold expansion of the space for practicing of urban agriculture in comparison to the 1st year of urban agriculture



## Method of pursuit

1. Survey on the actual status of urban agriculture
2. Execution of research consignment for the development of pilot for urban vegetable patches suitable for Seoul city.

### 3. Performances of pursuit until 2015



Establishment of vegetable patch on leftover land

635 locations  
86,162m<sup>2</sup>



Supply of box type vegetable patch

21,892 sets  
5,432m<sup>2</sup>



Establishment of rooftop vegetable patch

226 locations  
11,241m<sup>2</sup>



Establishment of fresh vegetable patch

109 locations  
7,086m<sup>2</sup>



Safety test for soil and agricultural produces

115 cases of agricultural produces  
74 cases of soil



### Total

635 locations  
86,162m<sup>2</sup>





## Current status of the establishment of urban agriculture park in Seoul City

## Examples of the establishment of vegetable patches in Seoul



- 1 Urban agriculture park in Gangdong-gu
- 2 Pilot urban agriculture park in Chang-dong, Dobong-gu
- 3 Urban agriculture park in Nodeul Island
- 4 Urban agriculture park within Galhyeon Neighborhood Park

- 1 Mullae-dong Jeongnip
- 2 Rainbow vegetable patch
- 3 Communal vegetable patch in Sangil-dong
- 4 Seonjaenuri rooftop vegetable patch
- 5 Rooftop vegetable patch at Jeongrip Center
- 6 Sambong environment-friendly farm



# Current status of pursuit and functions of urban agriculture

- Social functions: Restoration of communal culture, and venue for communication between families and neighbors  
 Experiencing weekend farmers by urban families: Held 30 times a year with more than 2,500 participants



## Operation of "Together Seoul environment-friendly farm"

- Self-sufficient provision of the opportunity to source environment-friendly food and healthy way of spending leisure time for citizens through the establishment of environment-friendly weekend farms: 4,500 participants annually



## Seoul urban agriculture exhibition: Held every May with approximately 100,000 visitors

- Publicize "Urban Agriculture, Seoul Metropolitan City" through exhibitions that converge multiple functions of the urban agriculture and use of the venue for sharing related information and to foresee the direction of progress in urban agriculture

## Sending a garden box for celebration



On birthdays and other special occasions, one can have a self-watering garden box with a choice of crops delivered, accompanied by a special message. It will help foster an environment favorable to invigorating urban farming and spread positive recognition of it.



### Semiannual Hanmadang urban agriculture festival

Promoting the base for urban agriculture by holding festivals where the urban farmers and citizens can enjoy and experience various aspects of farming together

### Photographic exhibition on urban agriculture

Intends to bring about the interest of the public through photographic exhibition on urban agriculture and by honoring creative photos with realistic illustrations of urban agriculture. Aims to appeal to the public with the theme of the urban agricultural activities and to publicize the beauty of urban vegetable patch.



### Program for sharing dinners with the produces grown from the vegetable patches

A social dining program using the urban agriculture produces, it is an opportunity for healing mind and body, communication with alienated classes in our society – including single-person households and elderly people.

### Semi-monthly held mini-concert at rooftop gardens

Hold concert at the rooftop vegetable patch to promote urban vegetable patches, share and enjoy urban agriculture by linking it with cultural art, thereby improving the awareness of urban agriculture

- Concert at rooftop gardens promotes urban vegetable patches, shares the joy of urban agriculture by connecting with cultural art, thereby improving the awareness of urban agriculture



### Economic functions: Generation of employment opportunities

**Farmer's market:** On 400 occasions a year at 15 locations including Gwanghwamun Square with an anticipated annual revenue of 2.3 billion won

Through the establishment of direct trading market between the producers and consumers, it will provide for the farmers and outstanding agricultural produces to the urban consumers at relatively low price, thereby making contribution towards the mutually beneficial coexistence of city and farming community.



**Seoul Market for agricultural produces and seafood at Korean Thanksgiving, Chuseok:** Visited by 750,000 people a year with generation of revenue of 8.7 billion won

Open a market at which the outstanding agricultural produces and seafood from all corners of the country and cultural events of the region harmonizing at one of the most celebrated national holiday of Korea, Chuseok.

### Open invitation project for private sector organization for urban agriculture

Generates employment opportunities and proliferates the base for urban agriculture through open invitation for projects in each area. This aims to activate urban agriculture, targeting urban agriculture organizations

### Open invitation project

Year	Support (organizations / million Won)
2013	10 organizations (197)
2014	10 organizations (197)
2015	9 organizations (250)



### Implementation of a garden maintenance monitoring system

For the purpose of creating jobs, garden maintenance monitoring agents will be selected. They will engage in a continuous maintenance of the garden, through which they will maintain the appearances of the garden and prevent budget waste.

### Support for the urban agriculture support centers: 5 organizations per annum with the support of 185 million Won

- Make contribution towards the activation of the urban agriculture organizations and generation of employment opportunities by providing support to the institutions and organizations equipped with the facilities and manpower for the execution of urban agriculture business.

### Operation of "Green Tour" for experiencing of Seoul farming in accordance with the advent of the era of the 6th industry

Provide support to generate high added value by using agricultural food items by linking the agricultural produces, which are the products of primary industry, with restaurant, distribution, tourism and leisure



### Support urban bee-keeping business

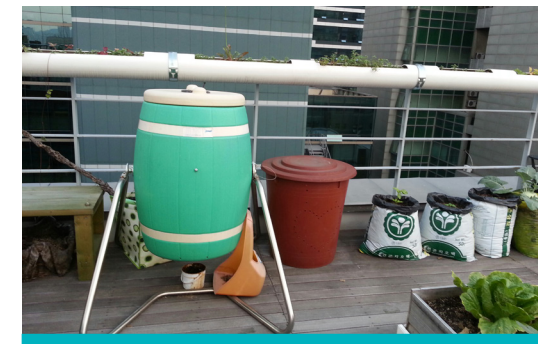
- Establishment of environment for the cultivating of agricultural produces within the city and establishing nature-friendly city the cultivation of urban bee-keeping business

### Execution of education for cultivation of urban agriculture specialist

- Execution of education program for cultivation of urban agricultural leader equipped with theoretical and practical knowledge for the purpose of activation of urban agriculture and generation of employment opportunities



### Environmental functions



### Manufacturing of compost for vegetable patches

Realize ecological city through the recycling of resources by producing compost using food wastes, livestock manure and fallen leaves, and seek activation of sustainable urban agriculture





## FUTURE OF URBAN AGRICULTURE

### Establishment of agricultural food industry start-up estate

Scheduled for the latter half of 2016

- Establish agricultural food industry start-up estate at the Agricultural & Marine Products Corporation in Garak-dong and select start-up companies capable of generating high added value through agricultural food items for the occupancy of the estate.
- Make contributions towards the generation of employment opportunities for youth and establish foundation for the advancement of agricultural food industry by selecting and supporting start-up companies.



### Establishment of "Seoul Farm"

Support the settlement of those planning to return to farming and provide opportunity for the citizens of Seoul to spend healthy leisure time through the establishment of Seoul Farm by using a foreclosed school in the rural area.

### Creation of "Seoul Kitchen Garden" inside a French royall kitchen garden Versailles

Creation of "Seoul Kitchen Garden" in Versailles, which attracts visitors from all over the world, will be an opportunity to celebrate 130 years of diplomatic ties between Korea and France and advertise urban farming in Seoul.

## Establishment of agricultural republic

### (A comprehensive theme park for urban farming)

Establish comprehensive experience space at which a diverse range of contents such as manufacturing, exhibition, sales, experiences and education, etc. can be offered at a single location under the theme of agriculture to provide a rest area to the citizens, and as a symbolic space of agriculture for the rediscovering of the value and joy of farming

#### Contents being pursued



##### **BUY (Exhibition and sales)**

- Farmer's market
- Permanent sales outlet for agricultural produces of Korea (agricultural produces, processed goods and traditional liquor, etc.)
- Local food restaurant (introduction of a diverse range of healthy food items, etc.)



##### **PLAY (Learning and experience)**

- Exhibition and experiencing of urban agriculture (Citizen's vegetable patch and rooftop vegetable patch, etc.)
- Rice gallery and traditional Korea liquor museum
- Urban agriculture and cultural experiences (cooking, handicrafts workshop and topiary, etc.)
- Horticultural healing farm
- Ecological playground



##### **LEARN (Education)**

- Vertical farm (Future agriculture pavilion)
- Agricultural history museum
- Seed museum

## Establishment of vertical farm

Cultivate future agricultural sector industry through the establishment and operation of ICT convergence Seoul type vertical plant factory through the utilization of the latest green technology

## Establishment of Seoul agricultural history museum

### (Planned to be created in 2018)

Establish agricultural history museum to be used as a living venue for education on agriculture as a basis of life prior to the urban development and as a part of experiencing the future generations.