

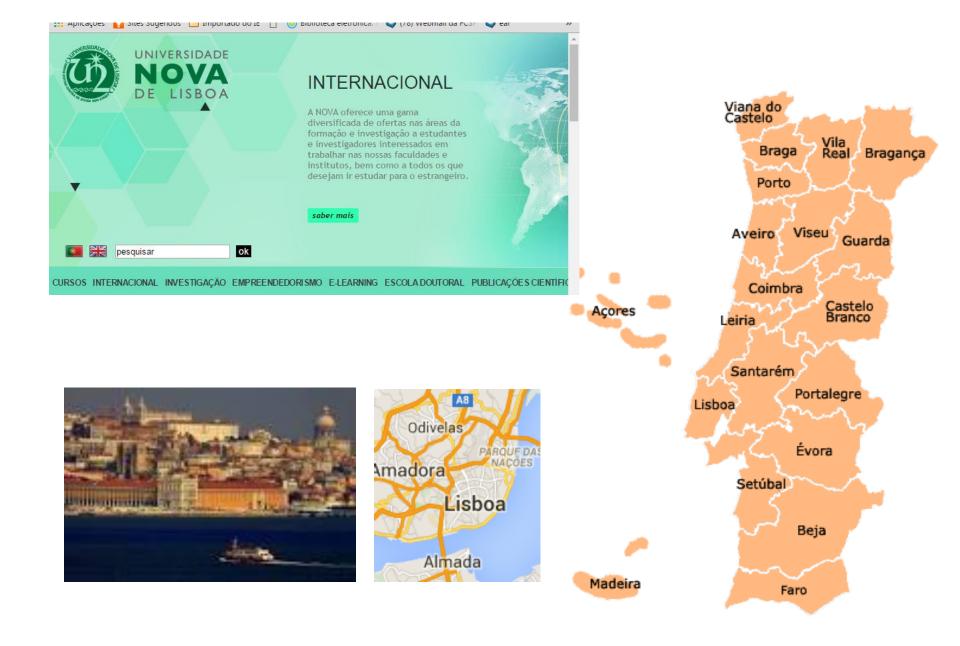


The Faculty of Social Sciences and Humanities (*Faculdade de Ciências Sociais e Humanas* - FCSH) forms part of the *Universidade Nova de Lisboa*.

Created in 1977 to offer social sciences courses that were absent in the Universidade de Lisboa.

	Number	Number	
	Sudents	Courses	
Undrg	2909	14	
Master	1718	44	
PhD	642	20	
Total	5269	78	

Teaching Staff	306	
Adm Staff	107	
research Units	25	(2012)





# Post Graduate Offer in Human Ecology at FCSH-Nova

## Master Program in Human Ecology and Contemporary Social Problems

4 semesters, 120 ECTS (6 seminars during 2 semesters plus 2 semestres to write the thesis)

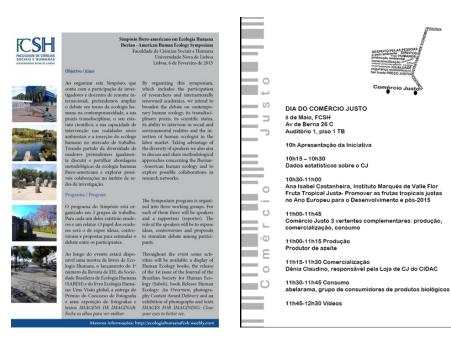
## **PhD in Human Ecology**

8 semesters (5 seminars during 2 semesters plus 6 semesters to write the thesis)

PhD research Issues

Environmental refuges; Management of the commons; artisanal fisheries; local ecological knowledge; Eco critic, earth condominium; management of protected areas; health and the environment

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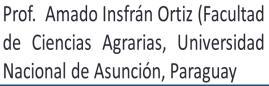








Prof. Emílio Moram, Michigan <sup>P</sup> State University, EUA



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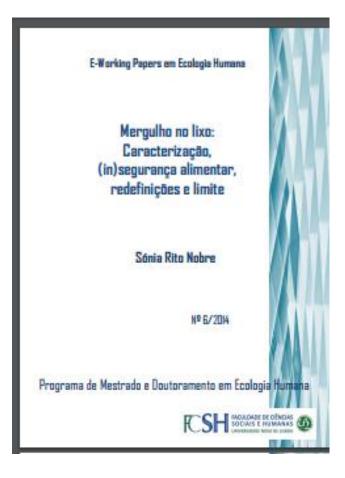
El Campo Laboral de profesiona en Ecología Humana en Paragua



Prof. Zbynek Ulcak Lukáš Kala Department of Environmental Studies Masaryk University, Brno, Check Republic







http://ecologiahumanafcsh.weebly.com/



# Urban Gardening in Lisbon City



## Iva Pires Im.pires@fcsh.unl.pt

Brno, May 2016



#### What is Urban Gardening

"an industry that produces, processes, and markets food, fuel, and other outputs, largely in response to the daily demand of consumers within a town, city, or metropolis, on many types of privately and publicly held land and water bodies found throughout intra-urban and peri-urban areas. Typically urban agriculture applies intensive production methods, frequently using and reusing natural resources and urban wastes, to yield a diverse array of land-, water-, and air-based fauna and flora, contributing to the food security, health, livelihood, and environment of the individual, household, and community industry located within or on the fringe of a town, city or metropolis, which grows or raises, processes and distributes a diversity of food and nonfood products" Smit *et al.* (2001: 1)

Elements that tended to be present:

- the **location** in which urban agriculture occurs;
- the **types of activities** included under urban agriculture;
- the legality and type of land tenure under which the urban agricultural activities occur;
- the **scale** of urban agricultural activities;
- the **purposes** of the activity,
- and the types of groups involved in agricultural production

<sup>-</sup> Smit, J., Nasr, J. & Ratta, A. (2001a). Cities that feed themselves. In *Urban Agriculture: Food, Jobs and Sustainable Cities*. USA: The Urban Agriculture Network



## **Urban Gardens**

Land tenure

Location

Peri-urban Intra- urban

FAO (2001). Urban and Peri Urban Agriculture: A briefing guide for the successful implementation of Urban and Peri-urban Agriculture in Developing Countries and Countries of Transition  Private urban gardens - found in backyards or balconies of private homes

- Institutional urban gardens where property and land management are done by institutions such as schools, prisons and hospitals – and
- Urban gardens located on vacant land that is public property.

FAO (2007)









Apartments in Phuket, Thailand. Pic viasreetartutopia.com

"UA practitioners' actions are based on the resources in the urban setting. Often utilizing vacant lots or other abandoned places within the neighborhood" (Opitz et al, 2016)







"Victory Gardens" during WW2

The War Food Administration created a National Victory Garden Program, which set five main goals.

 lessen demand on commercial vegetable supplies and thus make more available to the Armed Forces and lend-lease programs.
 reduce demand on strategic materials used in food processing and canning
 ease the burden on railroads transporting war munitions by releasing produce carriers
 maintain the vitality and morale of Americans on the home front through the production of nutritious vegetables outdoors

5. preserve fruit and vegetables for future use when shortages might become worse

(Heimer, 2008)

https://sidewalksprouts.wordpress.com/history/wwii/





Urban Gardeners in Berlin, 1946.

https://sidewalksprouts.wordpress.com/hist ory/wwii/

During the post war period the Urban Gardens flourished throughout Europe in order to respond to the economic difficulties and the scarcity of food As a result, in Russia and other Eastern European countries, many families began to produce food in their backyards, on patios factories, hospitals, in parks and even along roads (Heimer, 2008).

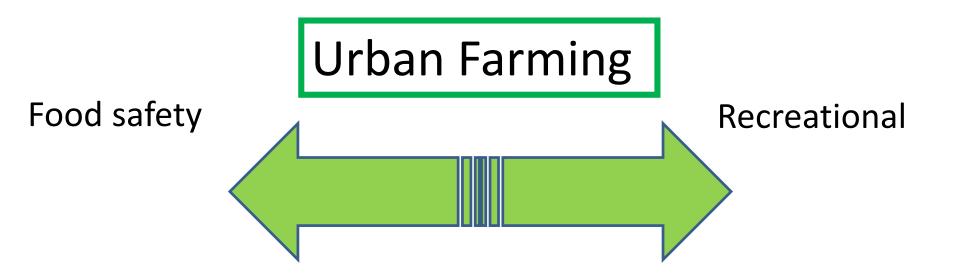


# Common Agricultural Policy (CAP)

It was introduced in 1962 and though a system of agricultural subsidies to farmers and other programmes increased the food production in the EEC.

It has undergone several changes since then to reduce the cost (from 71% of the EU budget in 1984 to 39% in 2013) and to also consider rural development in its aims.





Periods of economic crises, of conflict../less developed countries Food production to ensure food safety

Periods of stability/more developed countries Recreational, aesthetic, social, environmental, didactic



## The **benefits of urban gardening** are well reported

creation of social capital and social support through social connections (Kingsley & Townsend, 2006; Firth, et al., 2011)

environmental education and to combat "social amnesia" regarding our dependence on nature (Bendt, et al., 2013)

# acting as reservoirs of "socio-ecological memory" and contributing to maintain ecosystem services (Barthel et al., 2010)

# promoting social justice and public participation through environmental practices (Milbourne, 2012)

contributing to food security (Barthel & Isendahl ,2013)

# Pollution and chemical contamination

The main concern regarding the practice of urban agriculture has to do with its proximity to populated areas that in some cases are polluted. Food produced in polluted environments by chemical and debris may cause contamination to the population either by direct contact with the products - for gardeners - either by residues in food that they eat - for consumers Urban gardening is also enjoying a revival, which is appeased by several factors, among them, the desire of people to connect with the production of healthy food and with the Nature, and to develop a spirit of community.

"Community gardens have enjoyed a resurgence in popularity in many developed market economies in recent years, including in the UK, the USA and Australia. This upsurge is influenced by the desires of people to reconnect with food, nature and community. e" - Firth, Maye & Pearson (2011: 555)

Firth, C., Maye, D. & Pearson, D. (2011). Developing "community" in community gardens. *Local Environment*, 16, 555 - 568;

Urban farming has become an increasingly relevant topic in the science and planning of urban food systems aimed at reducing **food insecurity** at the level of the household and community.

The current global crisis and the acknowledgment that, in coming decades, the world population will be predominantly urban, brings about new necessities and demands for innovative approaches to **food systems' planning**.

The need urges to identify the most efficient and consistent ways to deal with problems concerning **economic and energetic efficiency, environmental quality, food security, job creation and urban development.** 



In the past few years, the international political and scientific agendas, strategies for food security in metropolitan areas, both in and out of Europe, highlight the need to **re-localize production-consumption systems** through more efficient shorter supply chains, as a means to promote **sustainable urban development via place-based approaches**.



Looking into an urban food system as a Foodscape considered as the spatialization of foodways and the interconnections between people, food and places (in Kenneally and Lebel, 2009:69) relies on an integrated and systemic approach that is useful either to the conceptual framework or the communication ability on a collaborative urban food planning process.



#### Lisbon City

## 548,000 inhabitants in 2011 LMA 2.5 million

the term "Urban Gardens" refers to the Intra-urban Agriculture on land owned by the Municipality of Lisbon, and were the vegetable production is used to meet a variety of needs of gardeners.



http://3.bp.blogspot.com/-G4AWJ9KjzJ0/Tdb7qxIfacI/AAAAAAAUfI/qKeMAdqKcCY /s1600/portugal\_mapa.gif





#### Lisbon City

On the reverse of other European cities where urban gardening has been integrated on the urban planning, in Lisbon it occurred spontaneously as a response to social and economic needs.

http://jregiao-online.webnode.pt/products/hortas-%C3%A0-beira-doic19-ajudam-a-alimentar-desfavorecidos/

They started to grow spontaneously since the early 60's mainly in the peri-urban areas related first with the migration from rural areas to the city and in the 80's associated with migrant communities especially those coming from former Portuguese colonies. (Cabannes and Raposo, 2013). They used private void spaces or mostly municipality owned lands.

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https://www.publico.pt/ciencia/noticia/lisboa-vai-ter-mais-e-melhores-hortas-urbanas-ate-2011-1382724



http://jra.abae.pt/plataforma/wp-content/uploads/2015/10/221.jpg

The economic crises transformed this small farming production into a fundamental mean of subsistence for many families

More recently middle income families are showing increasing interest mainly driven by the desire to establish a healthy life style, to connect to nature and to ensure the quality of food products they eat.

increasing demand for allotments



### The Municipality decided to intervene

# to control and organize the allotments



Integrating them in the city green infrastructure and incorporate them into urban planning







This process of reorganization of illegal urban farming is part of the Lisbon's Green Plan, adopted in 2007, were agriculture was assumed as an important component of the ecological structure of the city

Within this framework a Strategy for Urban Agriculture was defined and projected the construction of 20 horticulture parks (sets of urban farms integrated in defined areas) until 2017.

In 2015 10 horticultural parks already opened to the public.



This Strategy for Urban Agriculture aimed at responding to several challenges:

- The scarcity of available green spaces in the city (*green space availability:* 27.8m<sup>2</sup> per capita, Mata, 2014).

- the objectives of the Green Plan to link most green spaces through ecological corridors;

-to mitigate the impact of channeling waterlines by creating water basins in strategic valleys to reduce the impact of flooding (Telles, 2010).

- The need to reorganize allotments that were growing fast (partly due to economic crisis and rising unemployment) and unorganized

- Increasing demand for allotments



## multifunctional spaces



urban gardens should be included in Horticulture Parks, consisting of urban infrastructures used by farmers but also open to the public keeping different leisure uses and creating pathways for pedestrian and bicycles, approaching the agricultural activities of the remaining population (Henriques, 2009).



This orientation is in line with the European Commission (2013) "Green Infrastructure – Enhancing Europe's Capital Natural", were there is an explicit call for the inclusion of this "strategically planned network of natural and seminatural areas" in the spatial planning and territorial development policies.

The urban agriculture provides not only food but several ecosystem services that are essential to establish a green infrastructure to connect urban, periurban and rural areas in a functional basis.









In 2007 the municipality started a process of regularization of these areas. In 2009 started the implementation by displacing the famers working there to re-integrating them once the project was finished.







The creation urban farm parks in Lisbon was a step by step process :

1. Mapping of existent allotments

2. Mapping of potential allotments according to soil conditions (master plan)

- 3. Creating a municipal regulation to distribute the allotments
- 4. Implementation process/creation of Horticultural Parks
- 5. Provide skills and education programs for urban farmers
- 6. Supervision



ASSEMIBLIEIA MÓVEL IEMI IHORTAS URBAINAS TERÇA-FEIRA, 8 MARÇO, a começar às 10h na Horta da Damaia!

Percurso: 10h - Hurta da Damada Localização: traseiras da fraceta marquês de castelo novo, paralela a Av. Padre Himalaia

11H30 - HORTA DE TELLHEURAS Localização: Rua Prof Mário Chico, entre as vivendas e a escola

13H - HIORTA DO MIONTE Localização: intersecção da Calçada do Monte da Craça com a Rua Damasceno Monteiro

141130 - MORTAS DE CIRELAS Localização: perto do metro da bela vista



http://ephemerajpp.com/2011/03/06/h ortas-urbanas/

When the process started farmers in illegal allotments were afraid of loosing the access to the land and feel that the Municipality was not giving them the adequate information on what she was planning.

In 2011 the farmers organized a "moveable assembly" to discuss their concerns about the process of reorganization of allotments and to share information.

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The process of organization of urban farming parks implied

- -The reorganization and standardization of the size of the allotments
- The creation of infrastructures namely:
  - access to potable water sources
  - collective shelter for tools protection
- The reintegration of previous farmers and the selection of new ones
- -And a supervision:
  - -to ensure that all farmers are fulfilling the rules,
  - -are using the organic mode of production
  - to impede the construction unauthorized types of fences or shelter structures



The process of organization of Horticulture Parks implied

- Reorganizing and unifying the plots, providing infrastructures, water access, and small sheds for tools storage

- The re-integration of previous users and the selection of new ones

-And a supervision to ensure that all farmers fulfill the rules:

 namely the organic mode of production (after technical training offered by the municipality), composting, no chemical pesticides or herbicides, no chemical fertilizers, no Genetic Modified Organisms (GMO) and no use of infesting species.

- to hinder the construction of unauthorized types of fences or shelter structures, or to plant trees



# Tipology of Lisbon urban farms according to the Municipality

•

	Municipal expectant	DISPERSED URBAN FARMS	Increase the family income
URBAN FARMS	areas of temporary occupation		Added value for the city (reduces the management cost of the green infrastructure)
	Areas meant for production and leisure as classified in the Municipal Plan	SOCIAL URBAN FARMS	Social integration
		RECREATIONAL URBAN FARM	Benefits for the public
	1	PEDAGOCIAL URBAN FARMS I	health
			Environmental added value resulting from the balanced management of urban spaces



#### TIPOLOGY OF MUNICIPAL ORGANIZED URBAN FARMING PARKS IN LISBON

#### SOCIAL

- Goal: Sustenance.

- Minimum parcel area: > 100m2.
- Price: Yearly, Mandatory
- Organic production mode: no mandatory
- On Municipal Urban Parks:

80% discount over general price of 1,6EUR/m2/Year + MAINTENANCE COSTS 90% DISCOUNT FOR ASSOCIATIONS

#### RECREATIONAL

- Goal: Recreational, for fun, educational
- Minimum parcel area: > 50m2.
- Price: Yearly, mandatory
- Organic production mode: Mandatory.
- On Municipal Urban Parks

20% discount over general price of 1,6EUR/m2/Year + MAINTENANCE COSTS 90% DISCOUNT FOR ASSOCIATIONS







Spontaneous

Gentrification?

#### Organized plots

In this process from spontaneous and illegal to regulated urban gardening:

-What happened to the previous "farmers" (mainly immigrants, unemployed, low income families)?

-Where they excluded from the process?

-Do they have the conditions to access the new organized plots?

Interviews are in course in this reorganized social urban farms in order to evaluate the integration of the farmers that were settled there before the city council's intervention.

To observe if there were a kind of "gentrification" process with the substitution of the old farmer for a new ones

as nowadays it is a fashion to be a "urban gardener" but also the demand for the allotments increased due to the economic crisis and the high unemployment

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The Horticultural Park in Vale de Chelas is the city's largest, covering about 15 hectares, of which 4.5 are used for urban gardens.

This park includes about 200 plots, each with 150 square meters, with a part directly attributed to the nearly 100 people who were already occupying the place, and the remaining reserved for a public tender that occurred in 2013.



From the 17 farmers interviewed ;13 men and 4 women 5 are unemployed; 8 are retired; and 4 are employed.

Portugal, Cape Verde, Angola and India.

Within the group of "old" farmers, the practice of urban gardening varies from over 30 years to 3-4 years. The "new" farmers arrived between December 2013 and February 2014.





#### Motivation

In general people have the will to fill their time with something that gives them pleasure and that allows them to socialize. The contribution to the household income, although mentioned by most of the farmers, does not seem to be the priority among these 17 farmers.

But 7 farmers mentioned the contribution for the household income to be the main aim before anything else and 4 sell their products on a regular base.

One women said that she was testing Indian native species in her plot, to find out if the soil and the weather were appropriate and case of being successful she intends to sell the products to Indian restaurants in the city.



#### Motivations

In recreational parks

with the growing concern about ingesting better quality products as more and more people prefer, nowadays, an organic production with the use of natural resources and mechanisms of natural regulation, in detriment of the conventional way, specially couples with young children

(Gonçalves, 2014)



#### **Social Relations**

The relationships among them are reported to be very good and conflicts are rare.

The exchange seeds, products but also good practices.

The Cap Verdean farmers are known among the urban garners to be very skilled in the use of water for irrigation and they teach those techniques to the other farmers.



## Organic production mode

implies higher production cost

In the case of social farms there is some contradictory information

-On one hand the official information states that it is not mandatory for the social farms

-But farmers are not aware of this option; they all attended courses on organic farming and assume that its is a rule that they have to fulfill

-1 old farmer said that he was abandoning his gardening because of the high cost involved in organic farming and that it was not rentable anymore
-Another one although remaining for the moment wasn't satisfied not due to economic difficulties but because in his opinion nobody should pay to have access these allotments and they shouldn't be obliged to use organic prodution



#### Quality of the soil

Also, quality of the soil is reported to be very low.

At the time the city council flattened the irregularities of the topography, soil was brought to fill the gaps. This soil is said to be very muddy and very hard to work. When it rains it turns to mud, and when the sun comes and dries the land it becomes very hard and compact.

So, to get some results people have to invest on composting and fertilization which increases the costs.

According to the "old" farmers the land was better before the city council's intervention.





#### Quality of the infrastructures

Farmers sometimes report to other farms, such as the one in Olivais or Quinta da Granja to compare with their own, namely in what regards the pathways between the allotments.

"When it rains it becomes impossible to walk here, the Municipality should do something. I have been doing it around my allotment, but it is their duty". "If you go to the Olivais farms you will see the difference, everything is uptight, with stone paths, not as it is here".

The pathways are perceived as being responsibility of the Municipality and thus this situation brings farmers the idea that they "don't care about us"!



#### Accessibility

The fact that cars are not allowed in the area was reported by most of the interviewees. People have many difficulties to carry heavy things through the stairs, it is quite a long way to arrive with 10 kgs bags of (organic) fertilizer.

Also, families or friends with mobility problems (old people, disabled people, there were cases of both) just can't reach the farms. The state of the pathways on rainy days also hinders the access to these people.



# In general farmers don't have any complaints regarding the project itself.

As one farmer said "well, it is a good project anyway, they could have just thrown us out but because we were illegal they didn't and it is more beautiful now, more organized".



No infrastructures Difficult access to water Poor working conditions

Free use Total freedom to chose the types of cultures Total freedom to chose mode of production

They new all each other well

They could organize barbecues

#### After

They have to pay to have access to those allotments

They have to follow the rules defined for the use of those spaces They have to use organic mode of production

They improve their working conditions They have access to water and other infrastructures They have access to courses and technical support namely on Composting and fertilization techniques Pests and diseases control Natural hedgerow conceptions Water management Increased food production and quality Nevertheless, the creation of Horticultural Parks was a **top-down** very organized process were previous users had no participation.

Activities in the farms are supposed to respect a certain **aesthetics conception**. By proposing certain behaviour, such as planting flowers on the fences, or by prohibiting certain uses which are considered to be less aesthetic, the Municipality ensures that his aesthetic concept will be maintained by the farmers.



Apart from this top-down process leaded by the Municipality also a bottom-up process occurred.

In Alta de Lisboa the users created an association (**AVAAL – Associação para a Valorização Ambiental Alta Lisboa**) to discuss with the Municipality the reorganization of the space and had an active participation in the creation of this park



https://grupocomunitarioalta.files.wordpress.com/2010/01/junho-2009.jpg?w=450&h=337





## Discussion

- This new Horticultural parks respond to several challenges:
- -they improved capacity of producing food and providing quality food (organic production is mandatory or highly incentivized);
- they provide new green spaces for inhabitants as well as for tourists (they quickly appropriated this parks for leisure activities);
- -They contribute to control flooding which is very common in the city
- during the rainy season, providing ecological services
- -In general farmers are happy with the change. The availability of water is considered the most important aspect in their positive evaluation of this process of reorganization and legalization of allotments

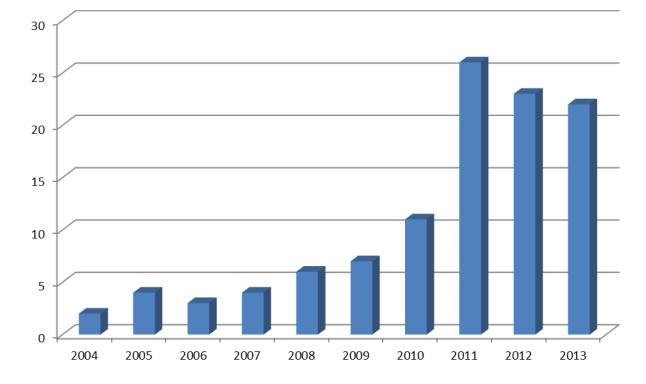


## Discussion

-In the social farms the users report positive impacts in socialization (those who are retired), food security of the family (in the case of unemployed) and even creating opportunities for small scale entrepreneurship; - in what regards the hypothesis of "gentrification" of the urban farms through the legalization of these areas, our preliminary results do not confirm it. In general farmers do not find the fee they have to pay too high, except for two of them (one that already gave up), all of the others intend to continue farming in the new allotment parks.

- finally, in the case of Alta de Lisboa it also contributed to a learning process of participatory governance, for the community as well as for the municipality.





Total allotment gardens – 3327 Area – 234419 m2

Source: internet research

Number of Horticultural Parks created in the main cities in Portugal





#### The "New Rural"



Noocity Urban Ecology is a luso-brazilian start-up, based in Oporto (Portugal) focused in developing equipment for urban agriculture. The name Noocity comes from mixing the prefix NOO, representing collective consciousness (based on the noosphere concept), with the word CITY, representing the urban universe.



MonteiroCan't stop thinking about the product!



José Ruivo Plans to turn each one of you into a farmer!



Leonor Babo Keeps explaining our dream to everyone!



#### **Further Steps**

Continue interviews in other horticultural parks

Analyze their impact in the city's economy by estimating its contribution to the urban food supplying.