

EU CAP NETWORK FOCUS GROUP RECOVERY OF ABANDONED AGRICULTURAL LANDS

What can we do to preserve agriculture in peri-urban areas?

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Why a mini paper on abandoned peri-urban agricultural land is needed?

Land abandonment is primarily caused by a diversity of social, political, and economic factors (Dolton-Thornton, 2021). We argue that those realities are strongly differentiated between peri-urban and rural areas. Agricultural land in peri-urban areas is a commodity which is kept idle for speculation. Agricultural land in mountains and remote marginal areas is abandoned for reasons such as demographic decline or globalisation (EU CAP NETWORK, 2023). This mini paper aims to illustrate how the strategies regarding the recovery of abandoned agricultural land need to consider different typologies of land under abandonment, such as mountain areas, remote marginal areas, and peri-urban areas.

As cities grow, demand for land and changes in land uses are placing large pressure on peri-urban land. Studies are showing that there is a surprising amount of open space and usable land which could be allocated or leased for food production, safeguarding a range of land uses within a framework of medium-long-term, balanced and sustainable agro-urban development (Bouma, 2021; Delgado, 2021; Dolton-Thornton, 2021; Gottero et al., 2023).

We need another rationale and more green solutions for our peri-urban areas, and the sustainable management of agricultural land is the way.

FAO (FAO, n.d., 2022a, 2022b) has recognized the important role of peri-urban production notably due to:

- › The promotion of sustainable and efficient production in urban and peri-urban areas through innovative approaches leads to better production.
- › Urban and Peri-Urban Agriculture (UPA) also contributes to better nutrition by promoting household food and nutrition security and direct access to fresh and nutritious food that can be harvested, prepared, and fed to family members.
- › The contributing to a lively agri-food economy in urban and peri-urban areas, generating job opportunities and facilitating local economic development - UPA brings a better life to urban and peri-urban dwellers.
- › The contribution to a better environment by improving the sustainability and resilience of the urban ecological environment. It does so by establishing short supply chains, fostering the recycling of urban waste, synergizing energy use and promoting investments in green infrastructures.

In the past, cities and towns have been established in areas that had secure water and energy supplies and fertile lands for food production. The growth and expansion of -urban areas involve the conversion of rural lands to residential use, fragmentation and a changing mix of urban and rural activities and functions. Changes within these areas can have significant impacts on agricultural uses and productivity, environmental amenity and natural habitat, supply and quality of water and water and energy consumption.



Defining peri-urban land

According to FAO (FAO, 2022b) “Peri-urban areas are zones of transition from rural to urban land uses located between the outer limits of urban and regional centres and the rural environment. The boundaries of peri-urban areas are porous and transitory as urban development extends into rural and industrial land. Irrespective of how the boundaries move there will always be peri-urban zones.”

Most peri-urban areas are located near consolidated urban areas, but they may also correspond to residential settlements located in rural landscapes. Peri-urban areas are often a product of the processes of suburbanisation or urban oil slick growth (urban sprawl). This being said land is not abandoned forever. The food crisis is bringing people back to remote rural areas in some regions of Europe, for instance. This possibility that land may be under abandonment and then be used again should be identified. Property rights may also play a role – land is abandoned by its owners, while, on the other hand, there are people who need land and could make use of the abandoned land if there were different regulations for rights of use¹. These are matters for public policies. Policies are not part of our discussion, but we might not be able to completely get away from them.

In this sense, this paper adopts the following definition of peri-urban agricultural land coined by UNESCO (2014):

“areas that are in a transitional position between strictly rural and urban areas. Peri-urban areas generally ensure a close urban-rural linkage. People represent an essential component of peri-urban areas as they are simultaneously a threat due to the process of progressive urbanisation and a consumer market opportunity².”

Abandoned agricultural land in the peri-urban areas: -specific features

Abandonment of agricultural land in peri-urban areas has specific characteristics that are alike other abandoned areas, either mountains or remote rural areas. Cities' closeness can be either positive or negative. For example, land near cities is scarce and more expensive than in rural areas, and the competition with industrial or residential areas is a continues struggling that can move away farmers. Still, there are several opportunities regarding agricultural abandoned peri-urban land, such as:

¹ See, for instance, the mini papers developed as part of the EU CAP network 49 FG on Recovery of Abandoned Agricultural Lands such as: “Ownership and behavioural aspects of land abandonment” and “Identifying and securing the involvement of stakeholders in combatting abandoned land”.

² See <https://en.unesco.org/events/peri-urban-landscapes-water-food-and-environmental-security> (Accessed on June 2023)



- › From an environmental point of view, producing almost anything in these areas will have a positive effect, both for biodiversity and for reducing GEE emissions.
- › The proximity of the city opens up a very interesting consumers market with more economic power and openness to niche crops and products, which are often more profitable.
- › Often farmers looking for agricultural land in peri-urban areas are more open to innovative arrangements, and new kinds of business such as agro-tourism, Community Supported Agriculture schemes, Food procurement initiatives, food apps, etc.
- › Also the new generation of peri-urban farmers, young and well-educated “new rural”, are often searching for more quality of life in a mix of countryside living and access to services, such as schools, hospitals, etc. Those infrastructures often exist in urban areas making peri-urban agricultural abandoned land the perfect hinterland for this new farmer generation.
- › At the same time, the land is needed for citizens' mental and physical health, and urban allotments, and city farms can be an interesting instrument to answer this need that brings together social, economic, and environmental perspectives.
- › Peri-urban areas are also where there is a high demand for green areas and leisure areas, for the urban population – an opportunity for the development of integrative uses in farmland - which in trend can be laboratories for more integration in rural areas, is also required, or also facing new demands by urban people.
- › Food and agriculture contribute 30% to the GEE emissions (IPCC, 2022), greatly due to transport involved between the place where food is produced and where it is consumed. Given this scenario producing food near the cities is a fantastic tool to fight climate change along with the agroecological transition.
- › Cooperation along the food chain, e.g., between farmers and consumers can be facilitated due to the proximity among food stakeholders involved such as restaurant owners, public canteens and school canteens teams, decision-makers, etc.
- › To end with, the pandemic and the Ukraine war have shown the need for cities to secure some level of local production therefore to not be so dependent on the global system.

Nevertheless, we recognize several constraints regarding agricultural abandoned peri-urban land, such as:

- › It often competes with other activities (e.g., housing, infrastructures, industry) and with key resources such as land or water. In particular, the value of land for non-



agricultural uses is much higher, which means that landowners will prefer to wait for better offers than to rent or sell it for agriculture.

- › Competition for key resources such as labour. Agricultural salaries often do not compete with urban jobs, and the work itself can be harder. Then if one wants to produce niche crops, rather than fresh vegetables for direct consumption, diversity, may require more seasonal manpower. This is a problem that somehow is evolving as a new generation the “new rural” is emerging that is not searching for profit but also for a new way of life.
- › The quality of water or absence of water is also critical, due to high population density and the presence of industrial activities. To overcome challenges, the long-term sustainability of peri-urban agriculture will depend on how it is regulated and integrated into the urban resource management and environmental planning process.
- › Land is mostly private and expensive compared with rural, marginal or mountain areas. It is difficult for public administration to make that land available for agriculture and food production. This implies a clear national or regional policy and public administration willingness to change the status quo.
- › Urban planning instruments revision can indirectly restrict the access to land for food production as often happens that peri-urban agricultural land is re-qualified as urban in the planning documents (or there is an expectation) and the parcel is sold by the ‘farmer’ to the constructor. However, it may take years until works start, sometimes the market situation changes, expectations never materialize, etc. In the meantime, the land remains abandoned for agriculture and degraded.
- › Cultivations are seldom protected by secure tenure arrangements which limit farmers' investment in the medium-long term.
- › Security and theft. Closer to the cities, equipment and products are more accessible for people. Still, there are ways of dealing with this issue by e.g., investing in a fence which requires farmers' investment in the medium-long term.
- › Preserving peri-urban land for agriculture is complex and calls for more integrated approaches, as the number of agendas (e.g., transport, climate change, housing, etc.) and stakeholders involved is usually higher comparatively with mountains, marginal or rural areas.

Examples of recovery of abandoned agricultural land in peri-urban areas

1. How Sintra (Portugal) municipality is struggling to battle abandoned agricultural land



In 2012, Portugal's central government created the national Land Bank (Law N^o. 62/2012, December 10th) ["Land Bank"] to facilitate access to land by making rural land for lease and sale more transparent, at least in theory. Land being made available through the bank could be either private or public. The private landowners willing to make their land available could do so voluntarily. The national land bank is supported by a web platform to turn the offer transparent. Although being managed at the national level by the Secretariat for Agriculture and Rural Development (DGADR) the management at the regional level is carried out by several local organisations.

The process did not gain the expected success for several reasons, among them, the lack of a state budget for buying private farmland (Delgado, 2023). As a result, a set of independent responses emerged at the local level, notably in municipalities such as Mafra, Cascais (Cascais E.M., n.d.), St. Tirso (C.M. Santo Tirso, n.d.), Sintra (C. M. Sintra, n.d.) and Mértola. Yet only the last three mentioned have been operating continuously: St. Tirso since 2015; Sintra since 2017; and finally, Mértola since 2020.

Sintra is a well-known municipality on the outskirts of Lisbon. The city has a total of 377.835,00 inhabitants and a territory of 319,23 Km². According to INE³, 79% of the city territory is urban or peri-urban, and 21% of the territory is rural (Master Plan). Still, 45% of the population lives in rural areas. This doesn't mean that they all practice agriculture.

To address land abandonment, the city created 2017 a specific Program for making that land available for farmers. The idea was to tackle the abandonment of peri-urban areas (private and public land), and at the same time to promote the development of the agriculture, forestry and silvopastoral sectors. The consumer market is very close. Sintra is a huge touristic attraction and Lisbon consumers are at 30 km distance. The program was developed by a city municipal team - Divisão de Gestão do Património da Câmara Municipal de Sintra. No other partners were involved.

The Programme has two components: the rent of land owned by the Municipality, through a public tender, and the dissemination of information on land owned by private individuals, who wish to do so, through an online platform⁴ created for this specific purpose by the municipality. To participate in the program, candidates (can be a person or an enterprise) must show financial and technical capacity. Then, the municipality facilitates the agreement between the candidates and the owners.

³ National Statistic Portuguese Institute

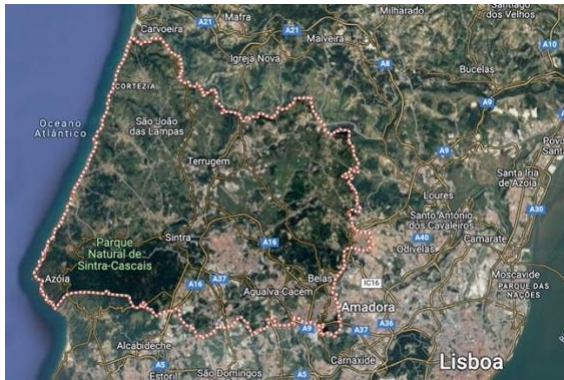
⁴ See: <https://cm-sintra.pt/dts> (Accessed in June 2023).



PROGRAMA MUNICIPAL
DISPONIBILIZAÇÃO DE TERRAS DO MUNICÍPIO

UNIÃO DE FREGUESIAS DE ALMARGEM DO BISPO, PÊRO PINHEIRO E MONTELAVAR

LOCALIZAÇÃO: Fonte da Aranha
GPS: 38.82722829924873, -9.280967560482242
INVENTÁRIO N.º: 112
ARTIGO MATRICIAL: 90 - Secção "CC"
ÁREA(M²): 4 640,00
RENDA MENSAL: 50,00 €



PLANTAS



Figure 1: Sintra location vs. Lisbon and factsheet of one of the plots in Sintra (Portugal) Two rounds happened so far, the first one in 2019/2020 and the second in 2022. Seven plots were made available in the first round, 12 projects were received, and 4 contracts were signed. Only 4 contracts were signed because the candidates just applied to the plots that were nearest to the city centre (peri-urban land) and had water available. The plots that were far away from the city centre didn't get any attention. In addition, two of the contracts did not move forward due to a lack of financial capacity.

2. How Pravia (Spain) is valuing abandoned land and avoiding the loss of its agricultural use

The complex structure of land ownership in Asturias (north of Spain), due to a rugged terrain with few areas of flat relief makes it difficult to have large farms which does not allow the development of competitive and profitable enterprises. In addition, there are many farms in which the ownership is not very clear, due to unresolved inheritances, making it difficult to rent or sell land. This problem is even stronger in peri-urban areas, where agriculture competes with more profitable land uses.

Asturias region is very active in finding solutions to promote the generational renewal of farmers. As part of its strategy, the region defined land zones related to specific crop productions, soil quality, infrastructures, and market demand. Still, all those relevant strategies already implemented there is a lack of coordination between different administrative levels. This means that at the municipal level, flat land and healthy agricultural soils are still being used for housing although being protected at national or regional levels.

In this context, Pravia municipality in the peri-urban area of Asturias region is a case of success. Pravia City Council and other regional, local, and regional public entities own agricultural land that is not being used. At the same time, the main objective for the rural development of the area is to bring back that land to be used.



The intermediation of the rural development group in the area, LAG Bajo Nalón, facilitated the land transfer to a farmer for 20 years to carry out kiwifruit plantation on 20 hectares of land owned by the municipality. The investment was supported by funds from the LEADER program. This way, the industrial use of this agricultural area was avoided. It is a good example of how to treasure abandoned land and avoid the loss of its agricultural use, in a peri-urban area.

The Municipality of Pravia and Bajo Nalon LAG are the ones leading the process. The Municipality is the owner of the land. This land transfer is adding value to the land and generates an investment that will create new jobs. Bajo Nalon LAG is an intermediary which facilitates the connection among farmers, landowners, and funding for agricultural investment.

The key to the entire process is to put supply and demand in contact, facilitating the process and investment. At the same time, it is about preserving land with high agronomic interest and generating a positive environmental effect. The concession of municipally owned land to the farmer is done following the established legal procedure, which gives reliability and security to all the parts involved. The pilot experience first developed in 2005 has been repeatedly replicated with success, for different crops such as kiwifruit, cider apple and red fruit farms.



Figure 2: Pravia location and view of a kiwifruit field

3. How Haarlemmermeer (Netherlands) is valuing abandoned land and avoiding the loss of its agricultural use

The west of the Netherlands has several developments in the peri-urban area. The municipalities buy a lot of farmlands to make sure they can develop when needed, and the farmers move elsewhere. In the meanwhile, the land is not used, or short-term managed by contractors, and the soil quality decreases very fast.

In this case, in Haarlemmermeer, there was a 40-hectare project, originally farmland, reserved to be a recreation area combined with rural expansion. Government planning and funding were a challenge, so nothing really happened. A group of local farmers



decide to make an inventory and developed a plan including several demands such as: giving the people from the city opportunity to recreate; creating a good business case; producing local food; protecting biodiversity; conserving soil quality; implementing education.

Farmers created a small-scale farm of 40 hectares with fields for different crops. These fields of 1 or 2 hectares all have crops with their own story, like grain for bread, potatoes that can be processed into fries, or vegetables. There is also a network of walking paths between the plots, so people can recreate between the crops and experience agriculture and food history. Field borders are made of wildflowers and herbs, where people can pick flowers and biodiversity can develop.

Every plot produces a crop, that can be sold at the local market, harvesting is done in an open public process so everyone can experience where food comes from. As part of the project and coordinated by the farmers, school projects are integrated so that children can learn about food and nature.

Every Dutch citizen has the right to have access to the recreation area, so the municipality pays the farmers for managing and maintaining this project area. The yield of the crops is collected by the farmers, so they make money on the local food market, and because of the demonstration cases in the fields, products are more well-known and easier to sell.

The land is still owned by the municipality. And because people have open access to visit the fields, the farmers pay low rent. The project area maintenance is done by the local farmers, which is played by the municipality and gives the farmers an extra income. Since the land produces the revenues of the products bring a financial yield to farmers.

In conclusion, this project turned a peri-urban abandoned area into a structure that gives people the opportunity to recreate and experience food growing and nature, brings a yielding business model for local farmers, produces food and biodiversity, brings education, recreation, and food production together, improves soil quality due to best practice farming.

In the peri-urban areas in the Netherlands, there are other similar opportunities because a lot of land is reserved for urban expansion, therefore this model can be upscaled.





Figure 3: Haarlemmermeer location and Ring Vartage Haarlemmermeer plan

Research Needs

Besides the three solutions described previously, more research is needed to understand how to better struggle against peri-urban land abandonment and simultaneously integrating food into cities surroundings. Three potential research lines are proposed here:

Assessment of the cost of non-action – agricultural production in peri-urban areas brings multiple benefits beyond food production such as adaptation and mitigation to climate change, mental health benefits for citizens, improving biodiversity, territorial and social cohesion, bringing children to the field, etc. – we need to find ways to measure the impact of this notably in order to keep this land available for future generations.

Integration and collaboration – how to integrate different “peri-urban food visions” and how to improve cooperation among the different food sectors is more needed than ever in peri-urban areas – we need planning, we need the farming sector, we need landowners (public and private owners) we need the legislation regarding food markets, we need post-harvesting facilities, etc, and many of those will be public most often, so cooperation between sectors is needed and not always simple.

Assessment of abandoned agricultural public land – in countries such as Portugal or Spain there is no record of how much abandoned agricultural public land is available. This should be a priority as municipalities should give the example by making their land available. The process implies political will and the involvement of at least two city departments, urban planning and Public Procurement and Patrimony.

Conclusions – Solutions for abandoned peri-urban land

Those three cases, Sintra, Pravia and Haarlemmermeer are showing that solutions exist for agriculture abandoned peri-urban land although, they can be very different



according to the country's background and farmers' ability to struggle for land access. Some common lessons learned:

Pravia and Haarlemmermeer are indicating that when municipal land exists the process of making that land available for farming can be faster as the number of intermediaries is lower compared with the traditional land bank model used in Sintra which implies the city as a facilitator between farmers and landowners. If public land does not exist more intermediation is needed. This can be done by the municipality as is the case in Sintra or by an intermediated as it was the case in Pravia. Our perception is that it is easier to have an intermediated agency (which can be managing a land bank, or other) as municipalities often lack resources and skills to do it.

The way Haarlemmermeer farmers were able to convince the municipality that land could be used in a win-win relationship, i.e., land for farming, business oriented, pedagogical for school children's and for citizens' recreation is showing that farmers need to be more proactive at least in countries as Portugal and Spain. This can be done by giving training in agriculture schools not only on food production but also on how to develop business models, organise farmers' groups, and work within existing favourable public policies as it as the case in Haarlemmermeer.

Pravia and Sintra are showing that peri-urban agricultural land abandoned also results from not having farmers willing to farm that land. This can be the result of several challenges such as (1) a lack of skilled people or (2) a lack of funding. The solution for the first challenge can be training for all new farmers outside the traditional academic scope, e.g., in joint partnerships that can include national and regional farmers' associations, academia and other relevant sectors. Regarding the lack of funding the solution could be the reinforce the role of intermediated agencies able to connect farmers with available funding.

To conclude, to preserve agriculture in peri-urban areas is a complex and very specific issue, when compared with mountains and marginal areas. Not all mechanisms can be easily applied and most of them depend on political willingness. Still, there is room for innovation notably involving academia - existing food and agricultural training programs must embrace a multidisciplinary perspective – we need to develop a new curriculum on “food and agriculture” that should include different disciplines such as agronomy, business, marketing, planning, network, strategy, social sciences, health, etc. The three cases presented are clearly indicating the complexity of “farmers” business today. From financial and technical capacity (Sintra) to the understanding of how to put supply and demand in contact (Pravia) and on top of this, the need to know how to develop a plan and business with different strengths: recreation, local food production; biodiversity protection; soil quality maintenance; educational perspective (Haarlemmermeer). To summarize the classical subject silos training for farmers does not answer today's challenges, therefore academic innovation is needed to fulfil the gap between past and present farmers' skills as a tool to preserve agricultural land in peri-urban areas.



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