

## Vienna Tree Protection Act in Austria<sup>1</sup>

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### Brief summary of the case

The Vienna Tree Protection Act (1974) legislatively protects private and public trees across the city. The act was introduced in response to public interests and in recognition of the contribution that trees make to the urban environment. In order to remove a tree, a permit must be sought from the authorities under defined conditions. If a permit has been obtained, individuals are obliged to plant replacement trees, or in cases where this is not possible a fee must be paid. Rates for the instrument have remained largely constant. Revenues have been modest for more than a decade, and these are earmarked for the preservation of green infrastructure in the city. Politically speaking the act was introduced without controversy and has successfully supported the maintenance of green space in the city, for which Vienna has attracted a particularly good reputation as a large city. City trees provide multiple ecosystem services and socio-economic benefits to cities and should not be underestimated. The experiences in Vienna, amongst other cities in Europe that have implemented tree protection legislation, demonstrate that this instrument can successfully maintain urban green space and act as a check on land use change. Future civil society engagement might explore how similar acts could be implemented in other cities, and in analysing the benefits which trees bring to Europe's cities.

### 1 Description of the design, scope and effectiveness of the instrument

#### 1.1 Design of the instrument

The Vienna Tree Protection Act was first introduced in 1974 (Landesrecht-Wien 1974). It protects all trees in the city which are deciduous or coniferous and have a trunk circumference of at least 40 cm measured at a height of 1 metre from its base (Landesrecht-Wien 2013, §1). The objective of the act is explicitly to “uphold a healthy environment for the people of Vienna” (Landesrecht-Wien 2013, §1).

The act forbids citizens to “remove, cut, or damage trees by mechanical and chemical means, as well as inhibiting their growth or causing death by other means” (Landesrecht-Wien 2013, §3). Landowners, tenants and lease holders and responsible for the preservation of the trees on their property.

Only under defined conditions can tree removal be permitted, and individuals must make an application in order to do so. It is an offence to interfere with trees until doing so has been authorised. Qualified reasons for removing trees might include old age, disease, risk of damage to infrastructure, or at an approved construction site.

The act obliges individuals to replace any tree that is removed. The number of replacement trees is determined by the size of each tree removed, additional replacement trees must be planted for every 15cm of trunk circumference (i.e. a 90 cm circumference tree will require 6

replacement trees). Where possible the replacement trees should be planted within 300 metres of the tree which was removed (Landesrecht-Wien 2013, §6). The act does not explicitly state what species of tree should be used for replacement, however details of replacement planting (such as using plans or sketches) must be included in applications (Landesrecht-Wien 2013, §6(4)).

In cases where tree replanting is justifiably deemed impossible, individuals must pay the city a charge for replanting. The unit rate per replacement tree is EUR 1,090. This is not an optional alternative to replacing trees but rather must be authorised by the authorities. In this sense the right to remove or replace trees cannot be bought and hence the instrument could be considered as a regulatory rather than a financial one (Kroneder, 2016).

Failure to comply with the Tree Protection Act risks a number of penalties. Those who remove or allow the removal of more than 20 trees without prior authorisation risk up to six months imprisonment or a fine of 360 Tagessätzen<sup>1</sup>. Additionally failure to replace trees faces a fine of between EUR 700 and 42,000 (Landesrecht-Wien 2013, §13).

There are a number of practical exemptions in the act, this includes forests (which are covered by forestry legislation), trees grown in nurseries, fruit trees, trees impeding water supply, trees impacting agricultural production and trees in small gardens (Landesrecht-Wien 2013, §1). Fruit trees, for example, are exempt, so that owners or orchards can maintain trees to support fruit picking (Kroneder, 2016).

## **1.2 Drivers and barriers of the instrument**

The act has the single objective to uphold the health the environment in the city. The political rational for introducing the act was in response to the unpopular felling of trees in the Vienna in the 1970s which provoked the city to legislatively protect its trees (Kroneder, 2016).

The act is not explicitly linked with any other policies and it was introduced as a single piece of legislation, rather than part of a package of measures (Kroneder, 2016). A separate piece of legislation covers forestry – the Forestry Act which was first introduced initially as a piece of national legislation in 1975 and has subsequently been revised (Landesrecht-Wien, 2016). Additionally, in cases where tree removal relates to the construction of property, these must follow Vienna’s construction laws as well as getting planning permission (Landesrecht-Wien, 2013b).

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<sup>1</sup> Tagessätzen – an income tested unit of fine used in Austria, between EUR 4 – EUR 5,000 (i.e. 360 Tagessätzen is represents a maximum fine of EUR 1,800,000) (Bundeskanzleramt, 2016)

### 1.3 Revenue collection and use

Table 1 shows how the charges and fines relating to the act have developed over successive reforms.

**Table 1- Charges and fines in the Vienna Tree Protection Act**

Act	Charge for Replacement tree (per tree)	Fines for failure to replace
1974	8,000 ATS (~ 581 EUR)	5,000 – 500,000 ATS (~EUR 363 – 36,310)
1986	8,000 ATS (~ 581 EUR)	10,000 – 2,000,000 ATS (~EUR 726 – 36,310)
1996	8,000 ATS (~ 1090 EUR)	10,000 – 600,000 ATS (~EUR 726 – 43,573)
1998	15,000 ATS	10,000 – 600,000 ATS (~EUR 726 – 43,573)
2001	1,090 EUR	700 – 42,000 EUR
2013	1,090 EUR	700 – 42,000 EUR

In addition to these possible charges and fines, all applicants for tree removal must pay a number of administrative fees to the city to process their application. Table 2 lists the elements of the administrative fee:

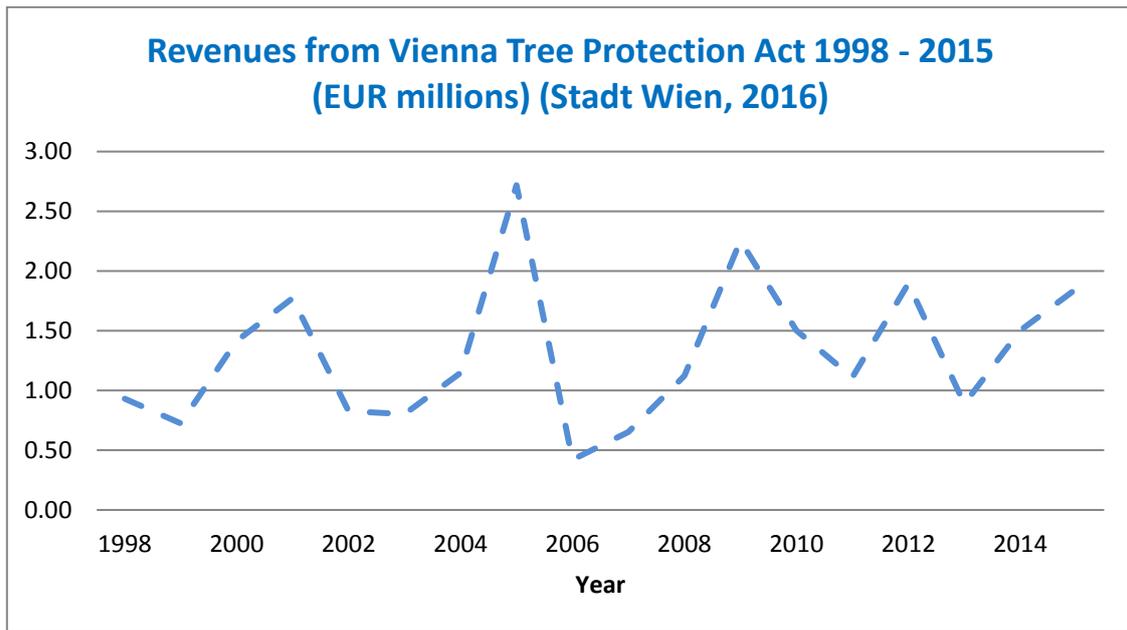
**Table 2 – Administrative fees for tree removal in Vienna**

Description	Fee (EUR)
Federal fee per application	14.30
Additional charge per page of application	3.90
Commission charge per half hour of appraisal	7.63
Per tree administrative charge (based on distance)	4.72 – 21.80 (maximum total 494.17)

*Source: Stadt Wien 2016d*

Analysis of public budget receipts for the city of Vienna from 1999 – 2015 (see *figure 1*) show that revenue from the act amounts to around EUR 23.5 million over that period, with an average revenue of EUR 1.3 million each year (Stadt Wien, 2016).

Figure 1



Revenue collection is not presented as the primary objective of the legislation (Kroneder, 2016). Indeed, revenues remain comparatively low in comparison to the costs of maintaining green space in the city. In 2015, the budget for the city gardeners was EUR 16.82 million (Stadt Wien, 2016c, p.290).

Cases for fines are relatively rare, with an estimated 100 fines issued each year. Most trees are replanted by the applicants for tree removal themselves (estimated more than 80%). Cases where individuals pay the city for replacing tree make up only a small number of cases. Between 1995 and 2009, an annual average of 1,125 charges were made on this basis (Rademaekers, 2011).

#### 1.4 Environmental impacts and effectiveness

Almost 200 km<sup>2</sup> or roughly 50% of Vienna's metropolitan area is made up of green space, and statistically there are 120 square metres of green space for each of Vienna's 1.7 million inhabitants. On this basis the city promotes itself as one of the greenest large cities in the world. An estimated 5% of the city is parkland, and 18% is wooded (Stadt Wien 2007, pp. 43-52). Trees on private land make an important contribution to the city's green space, for example in the 8<sup>th</sup> district private courtyards make up 70% of green space.

Figure 2

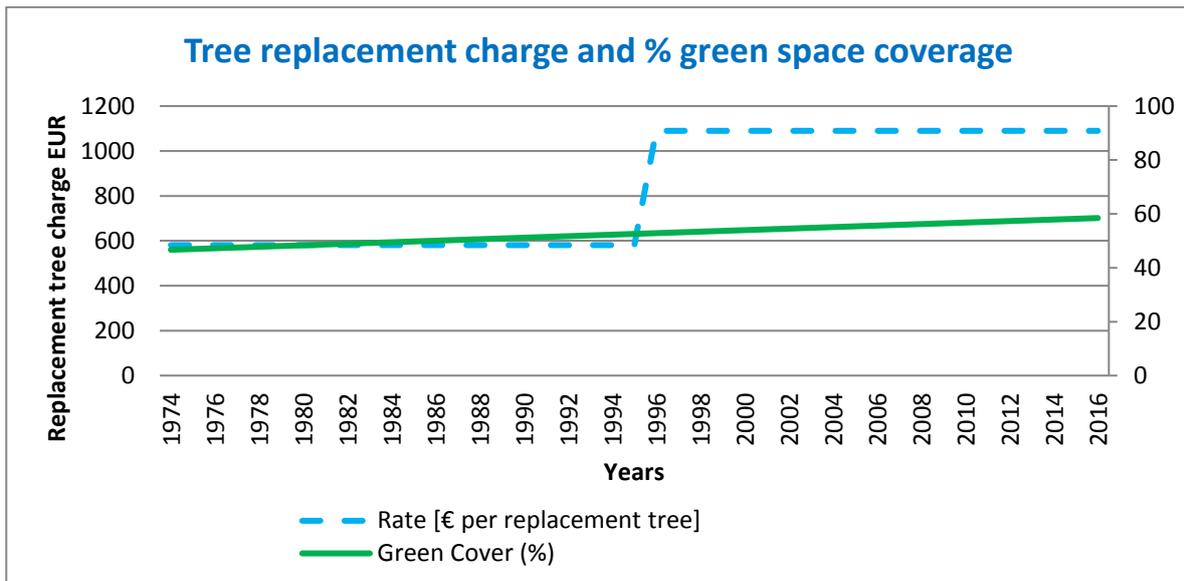


Figure 2 shows how rates and tree coverage have developed over time, suggesting a slight increase in green coverage, though it should be noted that this is based on three data points for green coverage (see below). Discussion on green coverage in an interview confirmed that green coverage in Vienna had remained around 50% since the introduction of the act (Kroneder, 2016). Having said this, correlating these observations with the legislation is difficult due to the complex and numerous variables which determine how a city’s land use evolves. Nevertheless, it is evident that Vienna is a relatively green city, and the Tree Protection Act will have contributed positively towards this by helping to avoid a loss of trees.

Table 3 – Biotope Assessments of Green Coverage in Vienna (Hoffert et al 2008, ÖBIG 2002)

Year of study	Green Coverage
1982	Ground based mapping only parts of city covered
1991	Incomplete data only some districts covered
1997	53.5%
2000	53.4%
2005	55.6%

Enforcement of the Vienna Tree Act is based on reporting and inspection. Although there is a citywide online registry of trees in public spaces (the Wiener Baumkataster), there is no registry of trees on private land (Offene Daten Österreich 2016).

The state of green infrastructure in a city is accurately estimated using remotely sensed infrared data (see table 3), which can determine tree species and canopy health with reasonable precision (Schmied and Pillman, 2003; Stadt Wien, 2007). Biotope monitoring using aerial infrared imagery has been carried out in Vienna since 1991, with flyovers carried out in 1991, 1997, 2000 and 2005. Previous to this a ground based biotope mapping exercise was carried out in 1982.

## 1.5 Other impacts

Assuming the instrument has contributed to maintaining green space in the city, this has the potential to deliver multiple ecosystem services to the citizens of Vienna (Kroneder 2016). There is an increasing evidence base which supports and promotes the multiple benefits of access to nature and green infrastructure (including the value of trees) (ten Brink, et al. 2016). Some potential benefits from maintaining trees in the city include:

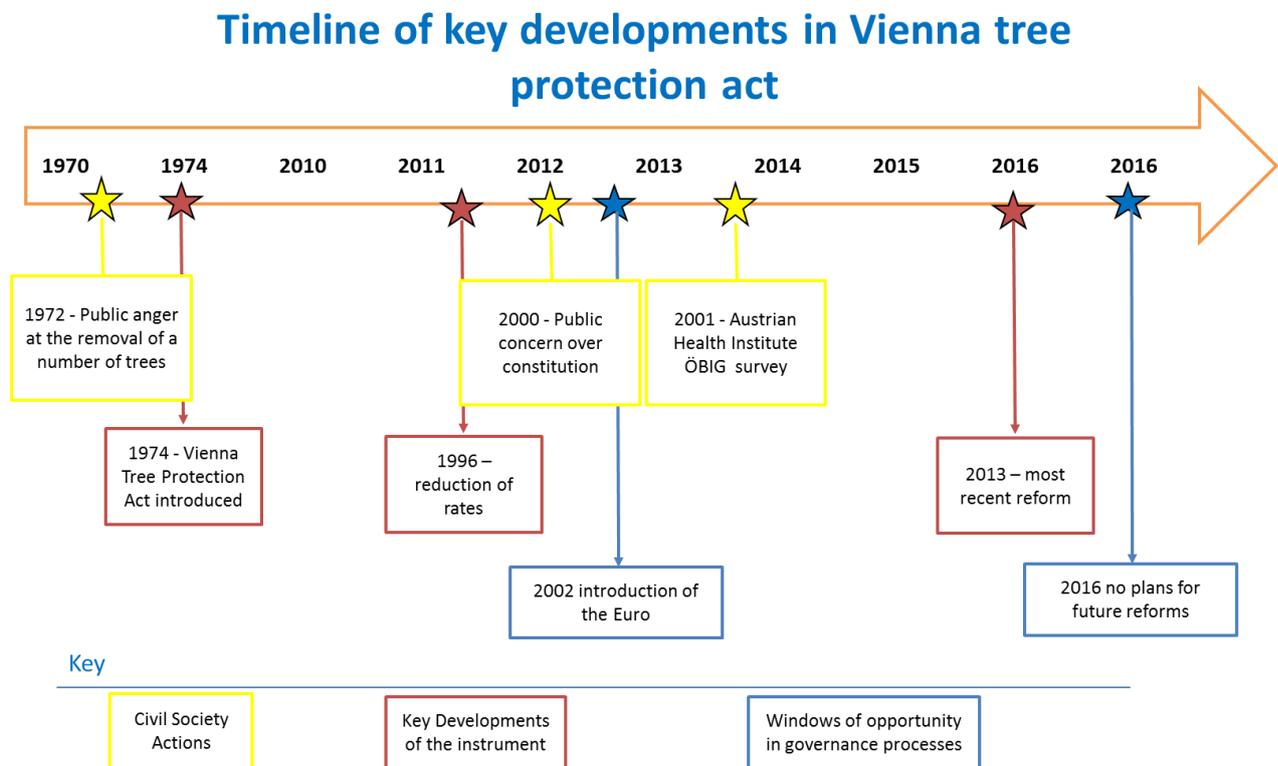
- Carbon sequestration
- Controlling air pollution and oxygen exchange
- Reducing heat stress
- Providing opportunities for physical recreation
- Mitigating noise pollution
- Reducing stress and maintaining everyday well-being
- Supporting the cognitive development of children
- Providing opportunities for employment
- Supporting local cohesion

In terms of employment, Vienna has a team of gardeners who are responsible for maintaining green space and public parks throughout the city. This includes maintaining 100,000 street trees, and planting 2,000 new trees each year. In total the city employs 900 employees for carrying out these services, which increases to 1,500 during the period from April to October (Stadt Wien, 2016b). In addition, to the public gardening services there are a number of private tree surgeon and gardening services on offer in the city, although it is difficult to assess whether there will be more or less of these as a consequence of the existence of the Tree Protection Act.

It should be said that green space is not evenly distributed in the city, for example districts 5, 8, 7 and 6 all have less than 15%, whilst 12, 14, 17 and 19 have between 60 and 80% green coverage (Stadt Wien 2007, p. 50; ÖBIG 2002, p. 49). Additionally, most research on the socio-economic benefits of green space tends to focus on public green space, such as city parks and tree lined streets. Trees on private property will not necessarily contribute socio-economic benefits to wider citizens, particularly those benefits which are contingent on access such as opportunities for recreation. For these reasons there may be distributional implications, in terms of who directly benefits from Vienna's trees.

## 2 Stakeholder engagement

Figure 3



The main actors involved in the act and their respective responsibilities are as follows:

- *Citizens* – must make applications for tree felling, are responsible for replanting, charges, and fines where applicable.
- *Vienna Magistrate (Magistrat Wien)* – with competent authorities in each of the 23 districts (Bezirke), the magistrate makes decisions on applications and collect fees or fines.
- *District mayor (Bezirksvorsteher)* – can take part in the decision making process, but with no formal responsibility or authority
- *Vienna Administrative Court (Verwaltungsgericht Wien)* – provides the appeal court in cases of disagreement
- *Federal Finance Courts (Bundesfinanzgericht)* – this court makes decision on issues relating to fines or charges, for example assessing the income dependent elements of fines. Also provide the legal authority when individuals don't pay their fines.

The Vienna Tree Protection Act has been in place in Vienna for more than forty years, without significant reform or controversy (see *figure 3*). Within the Vienna Department for Environmental Protection there is a feeling that the law is uncomplicated and effective (Kroneder, 2016).

An estimated 10 to 15 cases (from a total of several thousand) are appealed each year, this low number of appeals could suggest people are satisfied with the act (Kroneder 2016). The

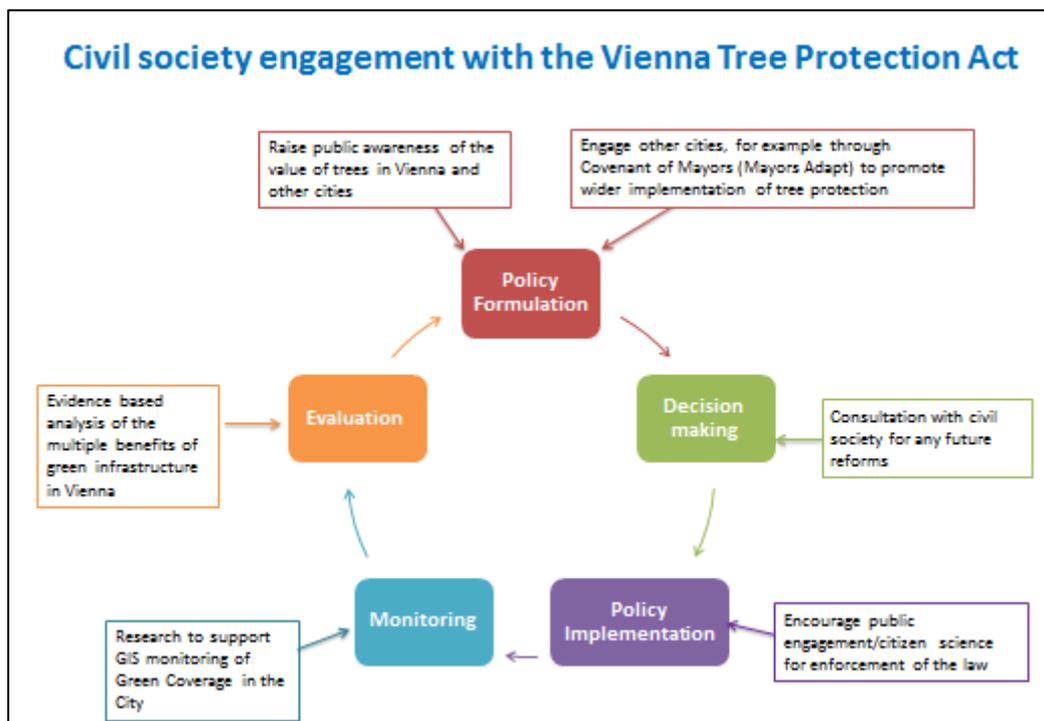
Verwaltungsgerichte Wien, are the regional administrative courts who handle appeal cases related to the Tree Protection Act in Vienna. The Federal Chancellery maintain a website on which appeal cases considered to be in the public interest are made publicly available. For the period 1 January 2015 to 1 January 2016, there are six cases of appeal indirectly related to the Vienna Tree Protection Act, of which one appeal was about the felling of a tree (Landesverwaltungsgericht Wien, 2015).

It was reported that, some property owners argue that private ownership is restricted through the tree protection act which is in contradiction with Austria’s constitution. In response, in 2001, the Municipal Department for Parks and Gardens ((MA 42 – Stadtgartenamt) commissioned the Austrian Health Institute ÖBIG (Österreichisches Bundesinstitut für Gesundheitswesen) to carry out a review of European tree protection laws, in order to “compare laws, to support decisions about law amendments, and to collect materials and ideas on how to protect urban trees efficiently” (Schmied & Pillmann, 2003, p. 116).

### 3 Windows of opportunity

Analysis of the act revealed that stakeholder and civil society engagement in the development of the act has been rather limited. The schematic below gives suggestions on how civil society might engage with the instrument in the future.

Figure 4



## **4 Insights into future potential/reform**

### **4.1 Actual Planned reforms and stakeholder engagement**

Since it was introduced the Vienna Tree Protection Act has been reformed nine times, most recently in December 2013 (Landesrecht-Wien 2013). Having said this, revisions to the Act have been relatively minor since its inception with the function and nature of the act remaining largely unchanged since 1974. One notable change was a reduction of the maximum fine from ATS (Austrian Schillings) 2 million to ATS 600,000 in 1996 (Landesrecht-Wien 1996), as this charge was considered to be unnecessarily high and legally too high to be administered by the Vienna Administrative Courts (Kroneder 2016). Finally, in 2001 the fees and fines were converted from ATS to Euros in anticipation of the introduction of the Euro in 2002 (Landesrecht-Wien 2001).

### **4.2 Suggestions for future reforms – instrument design and civil society engagement**

There are no known plans or intentions to reform the act. In terms of civil society involvement, future objectives might focus on promoting the replication of the Vienna act in other locations as well as further tree planting and greening strategies within the city.

### **4.3 Suggestions for replicability**

Vienna is not the only city in Austria, or indeed Europe, that has legislation to protect its trees. A survey of tree protection legislation in European cities commissioned by the city of Vienna identified 25<sup>2</sup> from 34 cities (74%) which had laws protecting trees in public or private areas (Schmied & Pillmann, 2003).

The scope and strength of legislation varies considerably between cities. Variation in legislation considered by the survey include:

- Whether private and/or public areas are considered
- The height/circumference considered (cm)
- Specific tree species
- Types of interdictions considered (i.e. cutting, removing, truncating)
- What exemptions are included (i.e. forests, public roads, cemeteries, nurseries, fruit trees, conifers)
- Whether a felling license is needed
- Possible justifications for getting a felling license (i.e. illness, threat to property, public law, shadow, construction)
- Obligation to replace trees
- Compensation
- Fines and penalties

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<sup>2</sup> Amsterdam, Berlin, Bern, Bologna, Bratislava, Brussels, Budapest, Dortmund, Düsseldorf, Essen, Florence, Frankfurt, Geneva, Hamburg, Hanover, Karlsruhe, Cologne, Lyon, Milan, Marseilles, Munich, Paris, Prague, Stuttgart and Vienna.

Vienna appears to have slightly more stringent regulations than most other cities, for example with a low minimum circumference, and higher penalties. In addition to those identified in the study several smaller Austrian cities have tree protection legislation, including Graz (Stadt Graz, 2007) and Salzburg (Stadt Salzburg, 2009). One aspect to consider with respect to the Vienna act is that it helps to maintain the trees which are already in place, rather than to increase the level of green in a city. A city with a low level of trees or green space might complement this legislation with other policies in order to increase green space coverages.

Evidently, tree protection is replicable in cities of different sizes and geographies across Europe. Considering, that cities everywhere are under pressure from development, tree protection legislation provides useful tool to protect green space in the city and provide revenues for maintaining green spaces, as well as preserving the valuable contribution they make in terms of ecosystem services (Kroneder, 2016).

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<https://www.wien.gv.at/finanzen/budget/ra01/pdf/20.pdf>

## Annex: Revenues for figure 1

Budget Year	Revenue from fees (EUR)	Link	Page number
2015	1,851,428.00	<a href="https://www.wien.gv.at/finanzen/budget/ra15/pdf/46.pdf">https://www.wien.gv.at/finanzen/budget/ra15/pdf/46.pdf</a>	167
2014	1,501,982.20	<a href="https://www.wien.gv.at/finanzen/budget/ra14/pdf/46.pdf">https://www.wien.gv.at/finanzen/budget/ra14/pdf/46.pdf</a>	169
2013	886,961.51	<a href="https://www.wien.gv.at/finanzen/budget/ra14/pdf/46.pdf">https://www.wien.gv.at/finanzen/budget/ra14/pdf/46.pdf</a>	175
2012	1,895,050.28	<a href="https://www.wien.gv.at/finanzen/budget/ra12/pdf/44.pdf">https://www.wien.gv.at/finanzen/budget/ra12/pdf/44.pdf</a>	167
2011	1,109,587.60	<a href="https://www.wien.gv.at/finanzen/budget/ra11/pdf/44.pdf">https://www.wien.gv.at/finanzen/budget/ra11/pdf/44.pdf</a>	167
2010	1,503,708.20	<a href="https://www.wien.gv.at/finanzen/budget/ra10/pdf/44.pdf">https://www.wien.gv.at/finanzen/budget/ra10/pdf/44.pdf</a>	171
2009	2,252,935.30	<a href="https://www.wien.gv.at/finanzen/budget/ra10/pdf/44.pdf">https://www.wien.gv.at/finanzen/budget/ra10/pdf/44.pdf</a>	172
2008	1,124,105.67	<a href="https://www.wien.gv.at/finanzen/budget/ra08/pdf/18.pdf">https://www.wien.gv.at/finanzen/budget/ra08/pdf/18.pdf</a>	176
2007	653,123.97	<a href="https://www.wien.gv.at/finanzen/budget/ra07/pdf/18.pdf">https://www.wien.gv.at/finanzen/budget/ra07/pdf/18.pdf</a>	176
2006	420,576.66	<a href="https://www.wien.gv.at/finanzen/budget/ra06/pdf/18.pdf">https://www.wien.gv.at/finanzen/budget/ra06/pdf/18.pdf</a>	180
2005	2,718,415.04	<a href="https://www.wien.gv.at/finanzen/budget/ra05/pdf/18.pdf">https://www.wien.gv.at/finanzen/budget/ra05/pdf/18.pdf</a>	177
2004	1,147,082.92	<a href="https://www.wien.gv.at/finanzen/budget/ra04/pdf/20.pdf">https://www.wien.gv.at/finanzen/budget/ra04/pdf/20.pdf</a>	188
2003	802,480.08	<a href="https://www.wien.gv.at/finanzen/budget/ra03/pdf/20.pdf">https://www.wien.gv.at/finanzen/budget/ra03/pdf/20.pdf</a>	198

<b>2002</b>	826,924.83	<a href="https://www.wien.gv.at/finanzen/budget/ra02/pdf/20.pdf">https://www.wien.gv.at/finanzen/budget/ra02/pdf/20.pdf</a>	201
<b>2001</b>	1,773,138.05 [ATS 24,433,842.31]	<a href="https://www.wien.gv.at/finanzen/budget/ra01/pdf/20.pdf">https://www.wien.gv.at/finanzen/budget/ra01/pdf/20.pdf</a>	209
<b>2000</b>	1,413,538.01 [ATS 19,478,553.73]	<a href="https://www.wien.gv.at/finanzen/budget/ra00/pdf/20.pdf">https://www.wien.gv.at/finanzen/budget/ra00/pdf/20.pdf</a>	222
<b>1999</b>	724,673.44 [ATS 9,986,000.00 ]	<a href="https://www.wien.gv.at/finanzen/budget/ra99/pdf/a000020.pdf">https://www.wien.gv.at/finanzen/budget/ra99/pdf/a000020.pdf</a>	220
<b>1998</b>	931,187.87 [ATS 12,831,768.79]	<a href="https://www.wien.gv.at/finanzen/budget/ra98/pdf/217-224.pdf">https://www.wien.gv.at/finanzen/budget/ra98/pdf/217-224.pdf</a>	220

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