

# Innovations in urban forest governance in Europe

## Abstract

Governance has been defined in many different ways, for example as any effort to coordinate human action towards goals. One way of conceptualising governance is through a continuum ranging from 'governance by government', to 'governance with government', to 'governance without government'. While the first describes the dominance of hierarchical political action, the last describes political decision-making processes primarily relying on non-hierarchical forms of steering in the absence of a higher central instance and participation of government. Political modernisation encompasses shifting relations between state, market and civil society in the political domains of society.

This paper focuses on political modernisation in urban forestry governance in Europe. Governance aspects of urban forestry have had only limited attention from the scientific community so far, in spite of major changes driven by, for example, emerging political discourses, the call for more public involvement, and government reforms. A review of literature and cases shows that new forms and modes of governance are being set up to improve decision making about urban woodland, urban trees and other green spaces. These new forms of governance include, for example, integration of urban forestry issues within various governance domains, 'scaling up' of urban forestry issues and closer collaboration between different public bodies and government actors such as local and national authorities, and greater emphasis on public involvement. It also becomes clear, however, that there is limited comparative knowledge of this field.

## Introduction

A recent report commissioned by the Collaborative Partnership on Forests' Global Forest Expert Panels initiative (Rayner *et al.*, 2010) outlines the complexity of modern-day decision making on forests. The report looks at strategic decision making on forest – with focus on the international arena – from a governance perspective, defining governance as any effort to coordinate human action towards goals. Forest governance involves a large and increasing amount of institutions, organisations, stakeholders and issues. The complexity of forest problems rules out simple governance solutions. Forest governance also considers issues such as the declining influence of the forestry profession in forest land decision making. In this respect, Hull (2011) speaks of the 'conundrum of forestry': 1) forests produce increasingly scarce and valuable goods and services that are increasingly at risk because of climate change, pests, diseases, urbanisation, exploitation, and neglect; 2) the confluence of rising value and rising threat presents a golden opportunity for professionals who can capture and enhance forest values, but 3) forestry's influence is eroding.

The governance aspects presented above also hold true for urban forestry, the interdisciplinary field that plans for and manages forest and tree resources in and near our cities and towns. Although the comprehensive planning, design and management of urban green spaces has a long history throughout Europe, application of the urban forestry approach as encompassing all trees and woodland areas in and around cities and towns has been much more recent (Konijnendijk, 2003). Urban forestry envisages integrating different elements of the urban green structure that have often been the domain of different professions and public authorities, for example trees along roads and on squares, parks and urban woodland. Moreover, urban forestry considers both public and private trees. Although the value of taking such an integrative perspective has been stressed, it has also become clear that decision-making processes are complex, for example due to the large amount of actors and stakeholders involved (Lawrence *et al.*, 2011). Moreover, urban forestry is typically dealing with so-called 'wicked problems', where no easy solutions are to be found.

### Keywords:

discourse, policy, policy actors, urban forestry

**Cecil C. Konijnendijk**

Danish Centre for Forest, Landscape and Planning, University of Copenhagen, Denmark

This article looks at strategic decision making on urban trees and woodland in Europe through the lens of 'governance', with governance encompassing the institutions, organisations, knowledge and processes involved in making policy and management decisions (Lawrence *et al.*, 2011). Governance is broader than government and has been defined by Kjær (2010, p. 10) as 'the setting of rules, the application of rules, and the enforcement of rules', where rules refer to the political 'rules of the game'. In governance, actors are searching for control, steering and accountability. The aim of this contribution is to identify innovative governance solutions to dealing with complexity and wicked problems faced by urban forestry.

## Frame for analysing urban forest governance

As described above, governance is seen here as efforts – typically at the more strategic level – to direct human action towards common goals, and more formally as the setting, application and enforcement of generally agreed to rules. Several definitions of governance concentrate on 'governance by government', identifying the state and other public authorities as the *de facto* leading actors in decision making. Kleinschmit *et al.* (2009), however, stress that governance should be seen as much broader, ranging from 'governance by government', via 'government with governance', to 'governance without government', with forest governance showing trends towards more multi-actor decision processes.

Van Tatenhove, *et al.* (2000) have presented the Policy Arrangement Model (PAM) as one possible frame for analysing policy making and governance regarding for example forests and other natural resources. PAM provides a structured approach to analysing and understanding policy arrangements as the way in which a certain policy domain – such as urban forestry – is shaped in terms of organisation and substance. The model states policy arrangement can change according to four dimensions, namely 1) actors and their coalitions involved in the policy domain; 2) division of resources between the actors, relating to for example power and influence; 3) rules of the game; and 4) current policy discourses. In this paper, actors are described as organisations taking active part in urban forest governance, while the broader term of stakeholders refers to organisations and individuals that have a vested interest in urban forests, but are not actively involved in governance. 'Rules of the game' refer to institutions, and to the regulations, legislation and procedures relevant to a certain policy domain. Discourses are defined as sets of ideas,

concepts and narratives which give meaning to a certain phenomenon in the real world.

Another central concept in the PAM is that of political modernisation in terms of shifting relations between state, market and civil society in the political domains of society. In the case of environmental governance, this can typically mean a policy arena with more actors and shifts away from 'government by government' towards more collaborative forms.

Earlier publications (e.g. Konijnendijk, 2003) have provided a more normative framing of the field of urban forestry, stressing the need for urban forestry to be 1) integrative, 2) socially inclusive, and 3) strategic, while 4) also embracing its urban mandate. Integration refers to looking 'horizontally' beyond sectoral and resource boundaries (e.g. from street tree to peri-urban woodland) as well as to 'vertical' integration of public authorities and other actors at different governance levels. Urban forestry's socially inclusive nature relates to equity issues and the wider involvement of stakeholders and urban residents. In order to find repercussion in a complex and highly dynamic governance setting, urban forestry needs to be strategic, formulating long-term visions and goals. Finally, while forestry has traditionally had a more rural mandate, its increasing urban framing requires fully engaging with urban societies and settings, and the challenges these pose.

The following sections will present and discuss developments and innovations (defined here as renewal in order to enhance process and performance) in urban forest governance in Europe related to these characteristics, using the governance terminology as outlined in this section.

## Innovations in urban forest governance in Europe

### Greater integration

A starting point for studying urban forest governance in Europe is studying how its policy domain is shaped – and how the field of urban forestry is defined. Definitions of urban forestry have changed over time. The way we look at and define concepts such as 'forest' is socially constructed and tells a lot about the way we look at the world. Elsewhere, more thorough analyses of (changing) definitions have been provided (e.g. Konijnendijk *et al.*, 2006). There seems to be a trend towards more integrative urban forestry concepts, although there is still a focus on the 'forest ecosystem' (woodland) part in the way urban forestry is

defined and applied in large parts of Europe. However, led by developments in the UK and Ireland, urban forestry is increasingly seen as looking at all urban and peri-urban tree resources. The Dutch city of Arnhem, for example, has been using the urban forestry approach as one of the underlying 'drivers' for developing a green strategy and 'green branding' of its city (Gemeente Arnhem, 2010). Another important development towards more 'urban green integration' is the rise in the use of the green infrastructure concept (e.g. Mell, 2010) as a way of stressing the need to take a comprehensive and functional view of green space, using the same 'language' as with other essential types of infrastructure. The Norwegian city of Bergen has been developing a 'blue-green' infrastructure plan for the period 2011–2020, with the clear ambition to integrate all its green and water structures, as well as to provide an input to city masterplanning and the overall political debate (Bergen Kommune, 2011; Lerum, 2011, pers. comm.). The discourse has thus been changing from 'single element' views of urban forests (typically city forests in many countries) to much more comprehensive concepts that include all tree, woodland and even all green space resources.

The emergence and spread of green infrastructure thinking has close links to the increasing focus on the functionality of forest and other ecosystems, as reflected in the ecosystem services discourse. From a governance perspective, the focus on ecosystem services arose with the United Nation's Millennium Ecosystem Assessment (2003). Rather than stressing the need to conserve nature and protect biodiversity *per se*, the discourse has gradually shifted to stressing the links between ecosystems, biodiversity and the essential services these provide to humankind. This discourse has also percolated to forest governance and urban governance as well as to governance on urban green space issues. According to the ecosystem services discourse, forests, trees, the overall 'urban forest' and the green infrastructure should be regarded as essential to urban societies, as they provide a range of supporting, provisioning, regulating and cultural services to society. Securing the provision of these services requires integrative and strategic planning and management. Moreover, adhering to ecological principles, it calls for a comprehensive perspective of all green spaces and elements in and around the city. This 'mainstreaming' of urban forest ecosystem services can be seen throughout Europe. Aesthetics and recreation are still an important part of the rationale for urban forestry, but a much wider range of goods and services is part of the discourse (Lawrence *et al.*, 2011). The role of urban forests in the climate change debate, and especially in terms of how they can make cities more resilient to climate change, is one case in point.

In line with the above, as well as with developments in government and public spending, greater integration is sought between different municipal departments, units and policies when urban forest issues are concerned. A national study of urban forestry in the UK identified the need for local authorities to integrate their governance and management of trees and woodland (Britt and Johnston, 2008). In Denmark, for example, a recent structural reform of government led to a merging of municipalities and the greater integration of planning and management tasks for both urban green space and forests and nature areas outside cities and towns. This has offered opportunities in terms of integration, but also challenges in merging different professional cultures and 'rules of the game' (Lerum, 2010).

Urban forest governance is also getting more integrated in terms of 'scaling up', both geographically and in terms of getting actors from different levels of government involved. An example of geographical scaling up has been the English Community Forests programme, a still rather unique effort of coordinating local urban and community forestry efforts at the national level. This programme has faced its difficulties, not least in terms of funding, but has also inspired similar initiatives elsewhere, such as Israel's Community Forests programme (Konijnendijk, 2008). Although urban forest governance is still mostly a local undertaking in most European countries, urban forestry and urban green space issues have emerged in national forest, nature and other policies. There has even been interest from the European Community level, for example by the recent use of the term 'green infrastructure' (European Commission, 2010) and organising a policy workshop on urban and peri-urban forestry as contribution to the implementation of the European Union Forest Action Plan.

An example of geographical scaling-up at the regional level is the Emscher Landscape Park (ELP) in the German Ruhr area. Led by a regional public body (the Regionalverband Ruhr) and increasingly also the federal state of North Rhine Westphalia, 20 years of planning and development together with municipal authorities and a range of other actors has led to a regional forested landscape park and a 'land transformation of unparalleled dimensions in terms of space, funding and time', in the words of Frank Bothmann, team leader at Emscher Landscape Concept (Under the open sky..., 2010). The ELP has helped transform a neglected area with abandoned industry to a green landscape with high-profile nature, recreation and cultural sites, covering an area of 85 km from east to west. The goal for the next two decades is to better link individual projects with one another and keep them going.

Examples of scaling-up in terms of greater involvement of regional and national actors at the local level of urban forest governance include the setting up of urban national parks in Sweden and Finland, the development of UNESCO Biosphere Reserves that include urban forest (such as the Wienerwald in Austria), and turning Zurich's Sihlwald urban woodland into an Urban Wilderness Park, with according status in national nature conservation legislation. All of these governance innovations involve state-level legislation and influence in local governance, which obviously brings along opportunities as well as challenges where local and national interests meet (Konijnendijk, 2008). The Slovenian town of Celje provides an interesting model of how city authorities and the state forest service have developed a partnership for urban forest planning and management. Jointly, they created a single brand for the city's urban forests, set joint objectives for management, and jointly engage with private forest owners in the area in order to bring these on board as well (Hostnik, 2011).

### More inclusive governance

Urban forestry programmes and projects throughout Europe have stressed the involvement of stakeholders and the public at large (Van Herzele *et al.*, 2005; Janse and Konijnendijk 2007). Van Herzele, *et al.* (2005) mention that much is to be gained from enhanced public involvement in decision making about one's daily living environment, for example in terms of more legitimacy and public support, enhanced awareness and 'better' decisions. The literature presents a large number of cases and experiences with public involvement in urban forestry, but it is difficult to assess how far stakeholder and resident involvement has become an integrated part of urban forest governance across Europe. Where public involvement in urban forests exists, this typically relates to (often statutory) policy making and planning, while involvement in actual management seems to be much less frequent. Cases of more organised forms of involvement, typically through associations and local resident organisations, are known (Van Herzele *et al.*, 2005; Janse and Konijnendijk, 2007). Performance indicators for the different English Community Forests, for example, have included information about the number of people involved in various activities, including planning workshops.

Although volunteering is widespread in many parts of European society (e.g. in sports clubs), only a few countries (notably the UK) seem to have traditions of large-scale volunteering in green space management and maintenance. The City of Copenhagen recently issued a first volunteering strategy specifically for open and green space and hopes to get local dwellers and associations more

engaged in the maintenance of its open spaces. The city faces huge challenges, for example in terms of littering in its parks, and hopes that volunteering will help raise awareness about this problem as well as contribute to less expensive ways of dealing managing the problem (Københavns Kommune, 2010).

Public-private partnerships in urban forestry have also been discussed in different European countries, but these types of arrangements are restricted to green space maintenance, where private contractors carry out work for public authorities. More strategic partnerships such as those in the USA, where private conservancies or trusts are co-managing large urban parks such as Central Park in New York and Golden Gate Park in San Francisco, are less common in Europe. Exceptions are, for example, the Woodland Trust in the UK and the nature conservation organisations in the Netherlands, as these own and/or manage woodland areas in or near cities.

### More strategic governance

A study of green space management in the Nordic countries by Randrup and Persson (2009) identified a common trend among municipal green space departments regarding limited time and resources available for more strategic activities. Moreover, the authors found that green space departments or units are seldom directly linked to the political part of the municipal government, being at least one or two 'layers' away. This remoteness from political decision making could hinder attempts to bring urban green space issues on the political agenda. As urban forestry is often carried out by municipal green space departments, these findings are relevant to this field as well.

Having said this, municipalities across Europe have prepared more strategic visions and policies for their urban green spaces – although cities with a strategic vision for their green spaces still seem to be a minority, and a lot also remains to be done in terms of implementing grand ideas. Moreover, policies do not always include all elements of the urban forest – most notably private lands and trees are given only limited attention. The City of Copenhagen developed a 'park policy' for its green spaces several years ago and has gradually updated its strategic objectives. Other Danish cities have followed suit. The example of Bergen in Norway with its comprehensive 'blue-green' infrastructure strategy was described earlier.

In the green space governance discourse, the term 'urban forestry' is seldom used outside the UK and Ireland. An exception is the Dutch city of Arnhem, which specifically

employs the 'urban forestry' concept of its strategic, cross-departmental efforts to develop its green structure and link up green space to overall city objectives. The city's Green Agenda, developed in an inclusive process that involves different parts of the municipality, experts and a range of organisations, now needs to be implemented (Gemeente Arnhem, 2010). Several UK cities and agglomerations have developed local community forest projects, where trees and woodland are the central elements of strategic agendas to develop and management multifunctional landscapes.

While governance of (publicly owned) woodland, parks and nature areas is becoming more strategic, resulting in a rapidly growing amount of visions, policies and strategies, urban trees are not always part of the policy discourse. An ongoing and unpublished Master-study in Denmark, for example, identified the lack of strategic consideration given to street-side and other urban trees, with tree care lacking expertise and often taking the form of 'crisis management'.

More strategic urban forestry governance also relies on sound knowledge management, for example as discussed by Lawrence *et al.* (2011). Here interesting collaboration models between municipalities and knowledge institutions have emerged in different European countries. So-called 'landscape laboratories' in Sweden and Denmark have been developed in collaboration between universities and municipalities to serve as test and demonstration areas for diverse and multifunctional woodland landscapes (e.g. Konijnendijk, 2008).

## Embracing an urban mandate

It seems obvious to embrace the urban when applying an urban forestry approach. But especially where forest and nature management are concerned, a key dilemma exists in terms of balancing the catering for urban demands with conserving natural resources and maintaining a certain 'naturalness'. Many woodland areas have gradually become parks, with an increasing amount of facilities, design and use. Former royal hunting estates are examples of this. Managers often ask the question, as a consequence, how 'urban' urban forestry should be. What types of activities should be allowed in urban forests? How much nature can there be? What are the experiences to be offered to urban residents? Questions like these are obviously also emerging in urban forestry governance discourses (e.g. Konijnendijk, 2003, 2008).

Embracing the urban also relates to the increasing need to generate income and reduce costs. With the western welfare model under pressure and public funding for green space

management being cut, while demands for green space are growing and diversifying, the credo of 'more for less' is becoming a mantra throughout Europe. Can we generate more income from urban forestry, for example, by offering (and selling) a range of existing and new services? Here examples can be found of renting out parks for a wide range of events, from rock concerts to lifestyle fairs (Gehrke, 2001). City parks in Germany, for example, have attracted up to 25 000 people during parties and concerts.

While other professions involved in urban forestry, such as landscape architecture and horticulture, have been used to working in urban contexts, this is less so the case for forestry. This implies, for example, that innovations have been required in woodland management practices, focusing on other outputs of forestry than timber. Aesthetics and enhanced recreational values, for example, are mostly in focus. Moreover, with the discourse on ecosystem services, promoting the various environmental roles of urban forests also requires forestry's specific attention. Here quite some experience has been gained with protecting watersheds and drinking water reservoirs. The city of Vienna, for example, has owned forests more than 100 km away as 'water source protection forests' for a long time (Konijnendijk, 2003).

Also relevant in this context is the need to consider the lack of integration of urban, peri-urban and rural governance and planning.

Fully accepting the urban also implies that different 'languages' need to be used. In urban forestry discourses, (place) branding has also entered the scene, as cities and towns are competing for international and national liveability and 'green city' awards. Individual parks are being branded as well, to residents as well as tourists, following overseas examples such as Central Park in New York.

## Conclusion

Political modernisation in terms of changing relations between state, market and civil society in the political domains of society is also affecting urban forestry. From a traditional mode of governance that was very much 'command and control' by public bodies ('governing by government'), there is a development towards forms of governing with government. Governing without governance is not a widespread phenomenon, it seems. Kjær (2010) describes the general context of public sector governance reforms, for example through New Public Management reforms. Reforms comprise deliberately planned change to public bureaucracies, search for governance innovation, and



have improvements in efficiency and effectiveness as expected outcomes. These developments will continue to have their impact on urban forest governance.

In terms of actors involved in urban forest governance, there is a trend towards a wider range of public, private and civic actors taking an active part. Policy networks are of rising importance and complexity (also Kjær, 2010), with public urban forest policy makers increasingly needing to operate in 'governance with government' settings, with tensions arising between flexibility and control. This shift is also requiring different institutional set-ups and rules of the game. Problematic for urban forestry is that its legislative base is often rather weak (Lawrence *et al.*, 2011). Changes are also occurring in the division of resources between different actors, with power and influence relations shifting. Some of the examples of this have been presented above.

In a recent article in the US-based *Journal of Forestry*, Hull (2011) provides an interesting perspective on the changes in the composition of forestry's 'patrons'. The traditional patrons, namely 1) government agencies charged with forest stewardship, 2) globalised forest industry and commodity producing landowners, and 3) remote rural landowners bypassed by urbanisation and forest investments have been losing influence. On the other hand, new patrons are gaining in importance, most notably 4) environmental non-governmental organisations, 5) owners of real estate investment forests typically located near urbanising areas, and 6) communities dependent on economies and services flowing from a working green infrastructure. In urban forestry, this development might be even clearer, as focus has been on a wide range of benefits and beneficiaries.

Hull (2011) sees opportunities for forestry with regards to this shift. He uses the concept of Working Green Infrastructure Forest (WGIF), stressing that both built (utilities, roads, buildings, markets) and green infrastructures are needed to sustain high quality lives and lifestyles, especially in urbanised areas. Urban dwellers are dependent on WGIF not for food, shelter or employment, but for ecosystem services and local sources of energy and materials they want to consume. WGIF acts as 'first contact' to forestry and natural resource management for millions of citizens, engaging, for example, challenges of climate change, green economy and wildfires. Urban forests thus can play an important role in aggregating or brokering ecosystem services and recreation, and even coordinating and distributing special forest products.

Finally, a study of the literature shows that we lack comprehensive knowledge of urban forest governance.

There are very few studies, especially of a more comparative nature (James *et al.*, 2009; Bentsen *et al.*, 2010). While recent publications have addressed international national forest governance (Kleinschmit *et al.*, 2009; Rayner *et al.*, 2010), there is very limited attention for urban forestry in these reports and articles. The 'urban' part of forestry seems to be seen as less relevant to discourses such as the role of forestry in mitigating climate change. Lawrence *et al.* (2011) have argued in this respect that urban forestry risks falling between two stools, not being given attention by forestry, but also being caught between urban and rural governance and planning arenas.

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