Improving contract design and management for urban green-space maintenance through action research
Lindholst, Andrej Christian

Published in:
Urban Forestry & Urban Greening

DOI (link to publication from Publisher):
10.1016/j.ufug.2008.02.001

Publication date:
2008

Document Version
Publisher's PDF, also known as Version of record

Link to publication from Aalborg University

Citation for published version (APA):

General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

? Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
? You may not further distribute the material or use it for any profit-making activity or commercial gain
? You may freely distribute the URL identifying the publication in the public portal

Take down policy
If you believe that this document breaches copyright please contact us at vbn@aub.aau.dk providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from vbn.aau.dk on: september 08, 2017
Improving contract design and management for urban green-space maintenance through action research

Andrej Christian Lindholst*

Forest & Landscape, University of Copenhagen, Rolighedsvej 23, 1953 Frederiksberg C, Denmark

Abstract

The provision of services related to green-space maintenance, such as grass cutting, tree pruning, litter collection, or weed control, is an integrated part of urban green-space management. Since contracting out has become common practice in urban green-space management, it is now a key challenge to develop well-functioning frameworks for managing the provision of outsourced green-space maintenance. With the public sector reform of the New Public Management, an emphasis on the four tenets of specification, pricing, monitoring, and enforcement of service provisions is now pervasive in the ‘standard framework’ for contract design and management. Based on an action research intervention, this paper puts forward an ‘extended’ framework for the design and management of green-space maintenance contracts that can help managers of urban green space to devise contract designs and management practices better adapted for green-space maintenance. The action research intervention took place as a part of efforts by the Danish Palaces and Properties Agency to improve green-space maintenance contracting in historic parks and gardens by implementing a performance management scheme. In addition to assessing the merits of the performance management scheme, the paper focuses on a new set of tenets related to the role of coordination, communication, motivation, and restraint of power.

Introduction

“The Head Gardener is in charge!”
(Quote: Contractor)

The Danish Agency for Palaces and Properties and its section for park management in particular has the responsibility of managing, maintaining, and utilising some of Denmark's most important historical parks and gardens. As a unique part of the national cultural heritage located in the metropolitan area of Copenhagen, the parks and gardens represent great diversity and quality in landscape architectural styles and genuine urban green spaces (e.g. Sandström, 2002).

While first-class design and planning, combined with adequate finance for capital investment and development, are essential for keeping parks and gardens up to date and capable of meeting the diverse demands of the public, it is through the daily provision of green-space maintenance that public service facilities, and horticultural and landscape architectural standards are kept up to standard. The Agency’s Head Gardeners have the responsibility for managing provisions of green-space maintenance.
Like other public managers exposed to pro-market policies (e.g. Patterson and Pinch, 1995), the Agency contracts out the provision of green-space maintenance. Congruently with the New Public Management (NPM) reforms and its implied policy of contracting out in the public sector (Hood, 1991, 1995), the Agency arranged its initial approach to contract design and management in a standard framework based on the four tenets of specification, pricing, monitoring, and enforcement of service provisions.

Between 1998 and 2004, the Agency achieved remarkable efficiency gains by contracting out virtually all services related to green-space maintenance and thereby abandoning a longstanding in-house arrangement. In 2004, budgets for green-space maintenance stabilised at a level 34% lower than in 1998 (measured in 1999 prices), without any experienced decline in standards of work or the quality of services. These figures could be explained both by inefficiencies at the outset and by efficiencies achieved by introducing competition.

Despite efficiency gains, government policies continued to force the Agency to consider how further improvements could be achieved. According to the law of ‘diminishing returns to competition’ (Boyne, 1998a, b), the prospects for further improvements in efficiency by contracting out were limited because competitive pressures were virtually fully implemented. So the Agency’s attention switched to viable alternative arrangements for well-functioning contract design and management of green-space maintenance. Fitting in with the emergent partnership approach for public service provisions (e.g. Bovaird, 2006), the initial objective of improving efficiency through competition came to be accompanied by an objective for improving services through the efficient management of available expertise and resources.

In 2004, the Agency implemented a performance management (PM) scheme to improve the standard framework for managing green-space maintenance contracts. The aim of the PM scheme was to address deficits in the standard framework by developing and aligning Contractors’ behaviour and expertise through explicitly acknowledging and (financially) rewarding good performance related to communication and collaboration, adaptation of services, and rationalisation of service provisions. In this way, the PM scheme extended the framework with aspects enabling Head Gardeners to implement a more holistic and inclusive approach in contract management.

In the first three years of the PM scheme, it was continuously refined in an internal trial and error process and it became an integrated part of the Head Gardeners’ contract management practice. As it became routine, the Agency felt a need to evaluate the scheme more thoroughly.

In 2006, the Agency agreed to participate in an action research intervention with the purpose of evaluating and improving the PM scheme in a systematic way and thus extracting knowledge that in turn could help other urban green-space managers’ attempts to improve green-space maintenance contracts.

In this paper, I present and discuss this action research intervention and the resulting framework for contract management. In a situation where there is a genuine lack of academic references on the subject, my secondary aim is to create a qualified reference for future reflection and development in green-space maintenance contracting.

The Agency case does not provide comprehensive insight into the whole range of viable alternative mechanisms for contract management. The presentation and assessment of viable alternatives for contracting out green-space maintenance have partly been carried out by Lindholst et al. (2008). However, since the Agency embodies a case of a relatively well-functioning contract design and management, it provides valuable insight into the intricacies and issues in contract design and management for urban green-space maintenance. In particular, the case provides insights into how the standard framework for contract design and management can be improved in a situation where urban green-space management relies fully on contracting out for the provision of green-space maintenance.

The paper is organised in the following parts. Section “Methods” presents the standard of action research employed and describes how the data collection and interpretation were organised. Section “Intervention” presents data and intermediate findings from the intervention. Section “Discussion and conclusion” part draws up and evaluates the findings, including the presentation of an extended framework for management of green-space maintenance contracts.

**Methods**

**Action research methodology**

With its origin in the pioneering works of Isador Chein (e.g. Chein et al., 1948) and Kurt Lewin (e.g. Lewin, 1946), action research today has a vast diversity of methodological approaches (e.g. Peters and Robinson, 1984; Dash, 1999; Chandler and Torbert, 2003). Indeed, because of the diversity of the tacit philosophical assumptions behind the different action research approaches, there are no universally accepted standards for distinguishing the ‘good’ from the ‘bad’ with regard to research aims, conceptions of science, criteria for validity, and the role(s) of the action researcher and the member of the organisation (Cassell and Johnson, 2006).
The action research methodology chosen for the intervention was based on the standard for action research outcomes and processes in management and organisational studies set out by Eden and Huxham (1996). The standard is explicated and sustained in later research by Huxham (2003) and Huxham and Vangen (2003). The standard provides a rigorous framework for research resulting from “involvement with members of an organisation over a matter which is of genuine concern to them” (Eden and Huxham, 1996, p. 75). The acclaimed value of the standard is its ability to develop and elaborate new ‘emergent theory’ by interactive use of data and theory within the research process.

The standard has much in common with the method for building theory from case studies developed by Eisenhardt (1989) and later sustained in Eisenhardt and Graebner (2007). However, the two methods differ in crucial respects with regard to the interaction between research and practice, and the purpose of the resulting theory.

Furthermore, the standard has an advantage compared with more positivistic inspired case study methods (i.e. Yin, 1981, 1994) in the procedure it establishes for generating and validating data and subsequent theory. Although this is not made explicit in the standard, the quality of data is ‘objectified’ through a hermeneutic procedure (e.g. Prasad, 2002). The hermeneutic procedure involves a recursive validation of successive interpretations on the basis of collected data and intermediary interpretations within the overall context. The making of ‘meaning’ is at the core of this process. In the intervention I am going to describe, this procedure implied a continuous dialogue between my (the researcher’s) interpretation and the interpretations of the members of the organisation involved on the subject matter of the action research.

To meet the standard for action research employed and simultaneously counter the more general critique of qualitative studies that they are methodologically opaque (e.g. Rynes and Gephart, 2004), four successive phases structured the intervention, and these are made explicit in the paper’s structure. An overview on the four phases is presented in Table 1. In contrast to the positivist criterion of ‘replicability’ (of results), the study presented is organised to fit the criterion of ‘recoverability’ (of processes) as set out by Checkland and Holwell (1998) to sustain the validity of findings in action research.

**Use of theory**

Theory was brought into play at two levels in the intervention. At a fundamental level, it was crucial to work within a theoretical perspective open for the purposeful direction of change and the development of emerging theory in a particular situation. The relational contract theory developed by Macneil (1974, 1980, 2000) meets these requirements, since it perceives contracts as historically evolved exchange mechanisms governed by partly *endogenously* determined norms that guide the behaviour of the contracting parties. With its emphasis on endogenously determined norms, the relational contract theory opens up an analytical approach respectful and widely adaptable to the logic of the contract in a particular situation. This is particularly important for the action research standard employed. Mainstream theories, such as public choice (e.g. Mueller, 2004), principal agent theory (e.g. Jensen and Meckling, 1976), or transaction cost economics (Williamson, 1985), that dominate the literature on public service contracting (e.g. Walsh, 1995; Domberger and Jensen, 1997; Boyne, 1998a,b; Brown and Potoski, 2003) are limited in this respect because they rely on *exogenously* given assumptions about the behaviour (e.g. it is rational, opportunistic), cognitive capabilities (e.g. ‘human beings intend to be rational, but with limited success’), and context (e.g. information asymmetries) of contracting parties. This means that the basis of these theories represent a priori views that may be difficult to recognise in a specific situation.

At the interactive level, theories about performance management and measurement in the public sector (Sanderson, 2001; Behn, 2003) and the interplay of incentives and motivation (Frey and Jegen, 2001) were invoked as inputs to qualify the interaction between researcher and members of the organisation. In particular, it was important to qualify the merits of the design of the PM scheme and the implied motivational drivers in phase two to sustain arguments on how to revise the PM scheme in phase three.

**Structure of the intervention**

In phase one, the Agency’s Key Managers and I planned the intervention and produced a road map for the process. Timeframes, research methods and evaluation objectives were made explicit and agreed upon. The level of involvement was limited to the Agency’s Key Managers. In subsequent phases, the involvement was extended to the Agency’s Head Gardeners and the Contractor’s Managers and Key Ground Staff.

The close interdependence between the researcher and members of the organisation in action research gives rise to a range of political and ethical dilemmas (Coghlan and Shani, 2005). Dilemmas typically arise from different roles, expectations, limitations in inquiry mechanisms, or political interests in shaping the potential outcomes. Difficulties may also arise in organisational contexts defined by the presence of conflicting external norms for and demands on organisational...
processes and outcomes. In such ‘political contexts’, decisions, talk, and actions may be deliberately de-coupled to promote organisational legitimacy and survival (Brunsson, 2002).

By considering potential dilemmas in advance of an intervention, it is possible to deal with (but never fully settle) dilemmas and subsequently avoid some of the pitfalls in action research. So, as part of the first phase, the possible dilemmas arising from the specific context, the methods, and potential outcomes of the intervention were systematically considered in the road map.

Phase two composed a process of external objectification (in the hermeneutical sense of interpretation). The phase uncovered the formal design and initial intentions behind the PM scheme, how the PM was managed by Head Gardeners and Contract Managers, and how they evaluated the impact/effects of the PM scheme. The design and management of the PM scheme were evaluated in the light of theory.

The individual contractual relationships (between Head Gardeners and Contract Managers) were arranged as embedded cases (Yin, 1994) and investigated by means of field observation, documentary study, and research interviews (Miles and Huberman, 1994). The research interviews were structured around seven core themes to enable comparison across contractual relationships. The themes included; background information, overall management approach, work motivation, attitudes toward PM scheme, management of the PM scheme, impact of PM scheme, and suggestions for adjustments/alternatives. The Contractors were represented in research interviews at two or three organisational levels (Contract Managers, Key Ground Staff, and Top Managers). This made it possible to assess the differential responses to the PM scheme within the Contractor’s organisations consistently.

Phase three composed a deliberative process of internal objectification in which the significance of the data (and emerging theory) was validated. Findings from phase two were presented for the Agency and the Contractors to sustain a dialogue on the design and management of the PM scheme. The formal parts of the dialogue were established in two successive workshops. The first workshop was open for all concerned, while the second was limited to just the Agency’s Head Gardeners and Key Managers. In the third phase the PM scheme was revised for the following year.

In the fourth phase, the successive ‘interpretations’ (or ‘models’) of the PM scheme were explicated through triangulation of external and internal interpretations. Through the differences and arguments in each model, inherent trends and learning processes became visible and findings from the intervention could be summed up. In the last phase the findings were reviewed by the Agency to ensure that the knowledge generated was ‘actionable’.

### Intervention

#### First phase

The most prominent dilemma expected to arise from the context (an economic exchange relationship) was constituted by incongruence between the goals and interests of the Agency and those of the Contractors. Incongruent goals in the context mean that inputs have to be interpreted against the background of particular interests. It was paramount to balance propensities toward strategic behaviour and ‘gaming’ in the intervention.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Objective</th>
<th>Method</th>
<th>Main data/input</th>
</tr>
</thead>
</table>
| One   | Planning (roadmap) | Analysis of intervention | • Two formal meetings  
• Formal and informal communication |
| Two   | External interpretation | Embedded case study | • Theory  
• Twelve interviews  
• Document studies  
• Four field observations |
| Three | Validation of interpretation(s) | Facilitated dialogue | • Phase two findings (interim report)  
• Two workshops  
• Formal and informal communication |
| Four  | Evaluating outcome | Triangulation of phases two and three | • Phases two and three findings (final report)  
• Theory |
To forgo an expected reluctance by Contractors or the Agency to reveal private information (also due to incongruent goals), a promise of confidentiality was made about all information revealed in research interviews. The promise of confidentiality partially impeded the subsequent dialogue in phase three, but enabled me to carry out a more comprehensible overall evaluation in phase four.

A second set of diverging interests existed within the Contractors’ organisations. Employees (Contract Managers and key Ground Staff) had an interest in improving their work conditions (or salary), while the Contractors as businesses had an interest in improving profits. Monetary rewards could potentially support one interest at the expense of the other.

For the Agency, the implementation of the PM scheme for green-space maintenance contracts also formed a ‘test drive’ for the organisation’s general development of contract design and management. This created a feeling within the section for park management of being ‘guinea pigs’ for the rest of the Agency. I also found a limited consensus on the underlying aims and relevance of the PM scheme. These diverging interests could potentially limit the implementation of any design and management recommendations generated in the course of the intervention. So, from my point of view, the outcome of the intervention was as much the triangulation in the fourth phase as it was the revised PM scheme in the third phase.

Phase two

The performance management scheme

The Agency’s first version of a PM scheme was introduced and implemented in 2004 on the back drop of experiences with the standard framework. The reasons for the introduction were three-fold. Firstly, the Agency sought to target issues in established contract management practice that could impede performance but at the same time were difficult to address through the standard framework. Secondly, the Agency sought to improve the value of service provisions by fine-tuning provisions to local needs. Thirdly, the Agency sought to utilise and encourage the professional expertise of Contractors to a greater extent by spurring them to produce inputs to planning and the coordination processes. Contractors were also invited to suggest alternative performance items. Finally, the Agency sought to make contracts more attractive for skilled and dedicated staff in a situation with a shortage of skilled staff within the business.

The PM scheme was formally organised around the three headings: (1) collaboration and communication, (2) service adaptations, and (3) rationalisations (i.e. making cost reductions). A list of performance items and measurement mechanisms was drawn up for each of the three headings. Each heading was specified with several sub-items measured on a scale using the scores: −10, −5, 0, +5, and +10, where 0 was given for the average performance. Only a positive score for the sum of all sub-items was transformed into monetary rewards. The maximum bonus size in the first PM scheme was limited to 2% of the annual contract sum. In later revisions, the maximum was increased to 5%.

The PM scheme was gradually refined, and at the time of the intervention it had been extended to cover the Agency’s seven major service contracts for green-space maintenance.

With the general concept of performance management (e.g. den Hartog et al., 2004), the implementation of the PM scheme turned contract management into an integrated process of setting expectations, measuring and reviewing results, and rewarding performance in order to improve overall performance. The standard framework only allowed this process to take place when contracts were renewed. In a broader public policy context, the Agency broke old patterns by implementing performance management as a mechanism internal to the contract and not as an external mechanism for contract monitoring and accountability as prescribed by the dominant approaches to performance management in the public sector (Sanderson, 2001).

New ‘relational’ aspect

A contract can broadly be defined as a mechanism for two or more parties for ‘projecting exchange into the future’ (Macneil, 1974, 1980, 2000). The standard framework focus on specification, pricing, monitoring, and enforcement requires a high level of information and a stable environment before the ‘projecting into the future’ can be effective, i.e. the received value is the same as the expected value. The PM scheme embraced new ‘relational’ aspects, supporting flexibility and adaptation of services within the terms of the contract in addition to the ‘transactional’ aspects of the standard framework. The PM scheme maintained contractual effectiveness if information in the planning process (manifested in the service specification) was subsequently revealed to be inadequate and/or the environment of the contract changed in unforeseen ways (e.g. shifting weather conditions, dynamics of eco-systems, plant deceases, new public policies, change in public preferences, or irregular public behaviour).

The inclusion of relational aspects initiated changes in the norms (i.e. behavioural expectations) governing the contract. In general, two norms are important to observe in a contract: (1) solidarity: the belief in being able to depend on each other, and (2) reciprocity: getting something back for something else (Macneil, 1980). The PM scheme constituted a mechanism that preserved the norm of reciprocity in a situation where effectiveness...
could not be fully specified in advance. This meant that the PM scheme embedded an implicit acknowledgement of the Agency’s dependence on the Contractors in a non-trivial way, i.e. efficient performance could not be maintained simply by the means of monitoring and enforcement of service provisions.

**New motivational drivers**

While the standard framework formally relied solely on enforcement mechanisms based on economic sanctions (e.g. ‘penalties’), the PM scheme includes motivational mechanisms based on a combination of psychological acknowledgement and economic rewards. In this way, the PM scheme establishes a formal mechanism for sustaining performance based on positive incentives and feedbacks (i.e. attention to good performance), in addition to the negative incentives and feedbacks (i.e. attention to poor performance) embedded in the standard framework’s monitoring and enforcement mechanisms.

From a theoretical perspective, it makes sense to introduce new motivational drivers. Frey and Jegen (2001) have sustained the argument that acknowledgement of inner motivation for task performance is vital for the efficacy of management systems in various settings (see also Fehr and Falk, 2002; Frey and Osterloh, 2005). Acknowledgement of inner motivation may boost performance extraordinarily by increasing motivation (‘crowding-in effect’) while denial or missing acknowledgement may impede performance by lowering motivation (‘crowding-out effect’) even where there are economic rewards and enforcement mechanisms. Inner reasons may be further strengthened by the presence of moral commitments, expertise, and/or a sense of autonomy (Deci and Ryan, 2000).

**Management**

The management of the PM scheme varied widely. In some cases, the Head Gardeners had a ‘unilateral’ approach to management while others had a more open ‘bilateral’ approach. In the field observations of PM-scheme meetings, I observed that the approach was interconnected with the quality of the interpersonal relationship between Head Gardener and Contractor. In some instances, personalities got along well and meetings took place in a ‘friendly’ atmosphere while other meetings took place in a more formalised ‘business-like’ atmosphere.

The size of the bonus was perceived as being of fundamental importance, but in a very different way from what could be expected from an economic viewpoint. Psychology was in play, although not as envisioned by the Agency, either. Adverse effects could be observed in cases where bonuses were perceived in economic terms by the Key Ground staff and the bonuses were not perceived as reciprocating efforts. The bonus had to fulfil expectations of reciprocation both psychologically and economically to have a positive effect on motivation (and thereby efforts and performance).

In at least two cases, the PM scheme had a negative impact on communication. With the inclusion of communication as a part of the PM scheme, the Contractors became worried about the consequences for performance evaluations if they communicated openly on issues perceived as negative by the Head Gardeners. The observation is of central interest because it reveals a possible negative side effect of the PM scheme on an issue that was regarded as one of the PM scheme’s most important aspects. The use of economic rewards and the influence of the dialogue on the performance measurement could impede and bias the qualified dialogue in the direction of a process of ‘gaming’. In one of the contracts, there was a clear tendency for all activity that before had been ‘a part of the job’, but now could have a potential positive impact on the performance measurement, to become formalised and turned into strategic arguments. In the majority of cases, Contract Managers wrote down what they believed might help in arguments with the Head Gardeners about the performance evaluation.

In poorly performing cases, communication and collaboration were especially burdened and impeded, and virtually all activity under the contract became perceived as a part of a formalised exchange relation. In these cases, the PM scheme became a ‘game of mutual shop-keeping’. In theoretical terms, the formation of a protracted exchange mentality was seen as rooted in violated norms for reciprocity and solidarity (and thus a denial of competency and autonomy) with the unintended consequence that the inner motivation of the Contractor decreased.

**Measurement**

Almost all the Head Gardeners had difficulties with measuring performance in an objective sense. Furthermore, there was no consensus among Head Gardeners on how to measure the sub-items. In practice, the problem of objective measurement was handled by shifting to a subjective evaluation of performance. In the best functioning cases, this was conducted through dialogue and/or negotiation. The subjective approach combined with bilateral evaluation and negotiation enabled the Head Gardeners to satisfy an overall sense of fairness related to respect of solidarity and reciprocity.

In one case, the Contractor recalled an instance where the sense of fairness was violated and had induced an entrenched reluctance toward the PM scheme among Ground Staff. In this instance, the overall performance evaluation had been impeded by a unilateral approach based on the intention to maintain objectivity in
performance evaluations. The Contractor reported the approach as highly frustrating and de-motivating. The unilateral approach based on connotations of objectivity resembled the standard approach. The problems reported indicated the risk in transferring practices and routines from the 'transactional' management of the standard approach into the 'relational' management of the PM scheme.

The problem of establishing objective performance evaluations highlighted a contradiction in the initial design of the PM scheme. If an objective basis for measurement of performance could be established, it would be straightforward to manage the performance items as a part of a standard framework, which would mean the PM scheme would be superfluous. This observation indicates the space in which the PM scheme could have its natural place: service efforts and provisions which cannot be measured or specified exactly in a clear-cut way. In the case, of the Agency, the standard framework based on traditional enforcement mechanisms was fully capable of handling management of services which could be measured in a clear-cut way.

Value
In general, the group of Head Gardeners had a mixed evaluation of the value of the PM scheme. Notably, their cognitive evaluation (experience) differed from their normative evaluation (attitude). The mixed attitude points to the more troublesome challenge of transforming a good principle into a workable mechanism. The formal principle laid down in the PM scheme was acknowledged as relevant among both Head Gardeners and Contractors. In particular, the PM scheme was acknowledged for the explicit recognition it gave to positive performance and its function as a 'counterweight' to the standard enforcement mechanisms.

In the cognitive evaluation of the PM scheme, the historical balance of costs (administrative time and financial resources) and benefits (improved performance for performance items) was not in favour of the PM scheme. However, the development in the balance was perceived as being in favour of the benefits. Furthermore, the administrative burden was mostly associated with the implementation and not the management of the PM scheme. This means that the administrative burden was experienced as decreasing with the institutionalisation of the PM scheme as an organisational routine (Nelson and Winter, 1985). This suggests that more value for money could be expected in the future.

The most notable benefit from the PM scheme was its ability to qualify dialogue between Head Gardeners, Contract Managers, and Key Ground Staff. This included the possibility of information exchange and the identification of differences in perception. This outcome was especially notable for contracts in which the relationship between the Head Gardeners, Contract Managers and Key Ground Staff had a 'formal' character from the outset. As a consequence of improved communication, the PM scheme was acknowledged to have improved the 'product' (i.e. the quality of service provisions). The PM scheme also helped to identify troublesome issues at an early stage and thus prevented serious issues evolving at a later stage.

Some Contractors furthermore acknowledged good communication and collaboration as a precondition for avoiding the use of monitoring and enforcement mechanisms. The PM scheme was perceived as an 'early warning' mechanism when service provisions needed to be adjusted or expectations harmonised once more.

In cases where there already was a good informal personal relationship, the formalised focus on dialogue embedded in the contract was perceived as redundant and described as a 'highly bureaucratic' mechanism. Where well-functioning dialogue and collaboration were already present, the value of the PM scheme was associated with an improved focus on service adaptations.

The PM scheme's last major item sought to motivate Contractors to propose rationalisations in service provisions. However, none of the Contractors found the size of the bonus sufficient to come up with any proposals that implied cost savings because this would reduce the value of the contract.

In sum, the use and value of the PM scheme differed according to the needs and history in individual cases. By comparing the history of individual cases, good communication and collaboration were shown to be a precondition for a more improved focus on local service adaptations and the development of services.

Alternatives
In addition to the mixed evaluation of the overall value of the PM scheme, the Head Gardeners came up with a full range of alternatives of potentially greater value for improving service provisions. The alternatives included activities related to social and professional development, and the allocation of money for refurbishment and extra works in parks and gardens.

These alternatives were preferred by the Contractors compared to getting the money in hand. In cases where the contract included a relatively high percentage of tedious horticultural work, there was an explicit call for interesting tasks and closer collaboration with the Head Gardeners. This indicated that Contractors were motivated by doing horticultural work as much as they were motivated by the prospect of marginal improvement in economic income. So, these proposed alternatives were rooted in the presence of competent and professionally engaged Contract Managers and Key Ground Staff.
Learning

For both Head Gardeners and Contract Managers with day-to-day responsibilities for contract management, the PM scheme provoked a learning process in which new management expertise evolved. The new expertise was especially related to mutual coordination and communication skills in a context defined by a complex motivational structure. In cases where the standard approach was transferred to manage the PM scheme (i.e. no initial adjustment of management practice), it had negative effects. However, with time, an awareness emerged of the importance of the relational dimensions for management. The relational dimensions were related to issues of motivation, perceived fairness, and the norms of reciprocity and solidarity.

The PM scheme was continuously revised and the evaluation of the Agency’s PM scheme cannot amount to a final evaluation of PM schemes per se. In general, there is a tendency to perceive the establishment of inter-organisational collaboration in terms of the immediately associated costs and not as an investment for the capture of future ‘superior’ returns (e.g. Madhok and Tallman, 1998). This means that, from a research perspective, the value of the experience with the PM scheme was greater than realised by the Agency and the Contractors. If experience is perceived as taking place in an (inter-) organisational learning process, the intervention was valuable for setting directions for further revisions of the PM scheme. The Head Gardeners’ and Contractors’ acknowledgement of the embedded principle of reciprocity and the prospects for further improvements indicated a confidence in the potential future value of the PM scheme.

The proposed PM scheme

In contrast to the control and accountability-oriented performance management approaches that has been dominant in the public sector, Sanderson (2001) has suggested a framework for performance measurement and management aimed at developing an ‘engine of change’ for sustained learning and improvement. Based on the findings in phase two and Sanderson’s framework, I elaborated a proposal for a revised PM scheme. The proposal was presented to the Agency and the Contractors and discussed in two subsequent workshops (phase three). The proposal can be summarised in five points:

1. **Formalisation of communication and collaboration should be included by other means.** In general, good communication and collaboration was perceived as a requirement for good performance and to avoid the need for enforcement, so the linking of monetary rewards with communication and collaboration was economically justified in a double sense. But the proposal was to exclude the heading for communication and collaboration from the PM scheme and integrate it into the framework for contract management by other means.

2. **Evaluation should be ‘bilateral’.** In the initial PM scheme, the Head Gardeners evaluated performance unilaterally. However, the intervention revealed that the Contractors needed an outlet to respond to evaluations made by Head Gardeners. Furthermore, the Head Gardener’s ability to communicate and collaborate was equally seen as a condition of good performance by the Contractors. So the proposal was to change the evaluation from a unilateral approach to a fully bilateral approach. Open feedback from the Contractors would enable both norms to be respected and enable the Head Gardeners to improve their management practice.

3. **Efforts for rationalisations should be supported by substantial economic incentives.** The Contractors were left with no economic incentive to reveal information about potential for cost reductions in service provision. So, a more potent economic incentive for revealing potential for cost reductions was proposed. The proposed incentive was outlined as a scheme for profit-sharing.

4. **Items should be few and focused on specific needs in green spaces (service adaptations).** The initial PM scheme made it difficult for the Contractors to deliberately focus and target efforts toward individual items in the PM scheme. Fewer items would concentrate focus and effort. In addition, a clear focus on service adaptations linked to sufficient financial resources would enable the Contractor to undertake more challenging horticultural tasks, which would spur greater professional engagement and motivation.

5. **High level of internal support.** The Head Gardeners had different approaches to managing the PM scheme. This became a problem of ‘equal treatment’ of the Contractors. The Head Gardeners also had trouble finding ways of handling challenges with management and measurement. Greater internal coordination and sharing of experiences would be a possible solution to these problems and help improve every Head Gardener’s expertise.

Phase three

In the first workshop, the Agency and the Contractors were asked to jointly identify activities that would be most likely to improve service provisions. A range of proposals came up that could come under the heading: “Common activities for professional development”. This included study tours, site visits, and closer interaction about work related to service provision.
Phase four

The revised PM scheme took some of the findings from phase two and the dialogue in phase three. In particular, the scheme was revised to give more focus to fewer items. Items related to cost reductions were eliminated. Internally, the management of the PM scheme became prioritised through joint PM meetings and greater dialogue between the Head Gardeners. The revised PM scheme retained the link between bonuses and the items for communication and collaboration.

Although the revised PM scheme for 2007 did not take up all the suggestions from the proposed PM scheme, the underlying trend is consistent in the direction of a unified conclusion for the development of the PM scheme. Table 2 illustrates the direction in the development by highlighting the differences between the initial PM scheme, the revised PM scheme, and the proposed PM scheme. In particular, fewer performance targets, a more substantial financial framework and a more inclusive evaluation approach based on dialogue can be highlighted.

The trend fits well with findings from an earlier development project for green-space maintenance contracting in Denmark (Randrup et al., 2006). These findings included suggestions for the allocation of pre-specified amounts of the contract sum to activities aiming at a continuous and dynamic development of green spaces. In this way, the contract should be able to engage and motive the Contractor by both an inclusive and open planning process and more challenging horticultural work. In the UK public sector, similar contract designs are commonly known as ‘incentivised contracts’ (e.g. Jones, 1997).

Although the general trend has a clear bearing, some differences between the proposed and the revised PM scheme should also be noted. The proposed PM scheme relies to a greater extent on performance sustained by professional values and expertise and seeks to keep communication and collaboration within a space ‘liberated’ (in some degree) from strategic arguments.

The revised PM scheme still kept initiative, planning, and coordination functions formally separated and only allowed for a minor degree of mutual planning and delegation of initiative. In the revised PM scheme initiative was welcomed, but impeded by insufficient mechanisms and incentives. This indicates a fundamental issue related to underlying contract norms. Improved collaboration was one of the explicit objectives of the PM scheme, so the lack of commitment to sustain these objectives showed that the Agency as an organisation was yet not fully ready to initiate the potential change in norms envisioned in the PM scheme.

The Agency’s approach to the development of the PM scheme may be interpreted as ‘risk adverse’. From the first PM scheme in 2004 and onward, each subsequent revision sought to test what it was possible to achieve with the lowest possible economic costs. Since total budgets for green-space maintenance were fixed, a risk adverse approach made good sense. The financial means allocated in the PM scheme had to compete with allocations to refurbishments and development projects.
The intervention revealed that the risk adverse approach in some instances rendered the PM scheme counterproductive. The risk adverse approach created temporary psychological barriers and reluctance among Contractors. However, the temporary psychological barriers and reluctance were not so entrenched that an initially unenthusiastic Contractor could not describe the overall development in the PM scheme as ‘a change for the better’.

Discussion and conclusion

Based on the findings from the intervention, the paper sustains an extension of the framework for contract design and management of green-space maintenance with four ‘new’ tenets. The tenets relate to the role of communication, coordination, motivation, and power. Together with the ‘old’ tenets in the standard framework, the eight tenets establish an extended framework. The tenets are summarised in Table 3.

It may be possible to get on informally with the new tenets. This was the case in some of the contracts before the implementation of the PM scheme. In this perspective, the PM scheme constituted a formalisation of the various aspects—and was partly redundant where informal mechanisms worked well. However, it was also increasingly valuable where informal mechanisms were poor and/or lacking. These observations are congruent with the propositions on how collaboration develops in relational and recurrent contracting laid out by Ring and van de Ven (1994).

It was furthermore noted by the Agency that with time the new tenets in the extended framework would eventually become part of a new standard for contract management and future issues would arise. So, from the Agency’s point of view, a distinction between standard and extended frameworks was regarded as historical and subject to change.

Coordination

The standard framework embeds the Green-Space Manager and the Contractor in the fixed roles of ‘buyer’
and ‘seller’, respectively, of a predefined set of services. In the standard division of labour, the Green-Space Manager plans what services are to be provided, while the Contractor plans how services are to be provided. The PM scheme did not change these fundamental responsibilities for the planning and provision of services, but opened up possibilities for a more flexible procedure in which the Contractor could participate through inputs in the planning of service provisions. The PM scheme also allowed the Head Gardener to influence to a greater extent how services were provided. The rationale for a more flexible planning process is grounded in the complementary expertise and unique information held by the parties to the contract (e.g. the Contractor gains valuable insights through his daily presence in the green space). Before the Green-Space Manager can benefit from a more flexible planning process, he has to consider how he will motivate the Contractor to a greater engagement and how communication channels facilitating a more flexible planning process can be organised.

Communication

Two-way communication, understood as a recurrent verbal exchange of ideas, opinions, thoughts, viewpoints, or perceptions, was acknowledged as vital by both Contractors and Head Gardeners. Communication was necessary to facilitate performance management as a part of a mutual learning process, generating shared understanding of service levels, stabilising behavioural expectations, and avoiding unintended violation of contract norms. Communication not only assisted the parties to ensure that the values given and received harmonised with initial expectations, but also to adjust expectations over time.

In some cases, communication was already present through informal mechanisms and the formalised item of communication and collaboration was perceived as redundant. However, well-functioning informal communication required a good personal relationship between the Contract Manager/Key Ground staff and the Head Gardener. It follows that changes in staff during a contract would make communication highly vulnerable if it were sustained only by informal mechanisms.

Motivation

Motivation was shown to be influenced by the psychological perception of monetary rewards. Indeed, reciprocity in the relationship was observed to be influenced by psychological acknowledgement, while the prospect of monetary rewards in the PM scheme had limited effect on Contractors’ efforts. The inability to honour the norm of reciprocity in a psychological sense could even make the prospects of monetary rewards backfire on overall motivation. Acknowledgement of inner motives based on professional norms was crucial and shown to be an important driver for engaging the Contractor. Thus, it was revealed that economic incentives could work with greater effectiveness if they were combined with activities sustaining inner motives based on professional norms. The PM scheme’s item of rationalisation was an example of a mechanism that could constitute a professionally engaging challenge. However, without sufficient economic incentives, it was not sustained and the item was omitted in the latest revision.

### Table 3. Overview of the fundamental aspects of an extended framework for contract management that the intervention showed to be important for green-space maintenance

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Question</th>
<th>Basic requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard framework</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specification</td>
<td>What do we want?</td>
<td>Service provisions can be defined in a comprehensible form</td>
</tr>
<tr>
<td>Pricing</td>
<td>What will it cost?</td>
<td>The market provides optimal pricing</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Do we get what we want?</td>
<td>Reliable procedures for measurement</td>
</tr>
<tr>
<td>Enforcement</td>
<td>How do we ensure that we get what we want?</td>
<td>Service provider is ‘sensitive’ to enforcement mechanisms</td>
</tr>
<tr>
<td><strong>Extended framework</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coordination</td>
<td>Who does what best?</td>
<td>Flexible and open planning and decision procedures</td>
</tr>
<tr>
<td>Communication</td>
<td>How do we get the information we need?</td>
<td>Facilitation of information-sharing (e.g. joint activities)</td>
</tr>
<tr>
<td>Motivation</td>
<td>How do we make (better) use of human resources?</td>
<td>Work can be interesting and engaging (professional norm)</td>
</tr>
<tr>
<td>Restraining power</td>
<td>What are the consequences of monitoring and enforcement?</td>
<td>Enforcement respects norms for flexibility, solidarity, and reciprocity</td>
</tr>
</tbody>
</table>
Restrain of power

Monitoring and enforcement mechanisms in the standard framework had in general proven effective for dealing with cases of non-compliance. However, the rationale for the PM scheme was that there were limitations in the ability of the standard framework to drive improvements in service provisions further.

Monitoring and enforcement mechanisms originally targeted compliance of performance with service specifications, but did not counterbalance instances of non-compliance with evaluation of the overall effort or impression. Thus, standard monitoring and enforcement mechanisms could violate norms for reciprocity and solidarity and thereby impede or destroy the Contractor’s inner motivation. Communication enabled the Contractor to comprehend the Head Gardener’s perception of the acceptable standard for specified services (and vice versa) in a more holistic way. So, flexible planning and intensified communication enabled Head Gardeners to minimise the use of enforcement mechanisms to manage service provisions. This observation also plugs into a more general discussion of the effectiveness and purpose of different kinds of performance measurements (Behn, 2003; Propper and Wilson, 2003).

Comparing the framework

The findings can be evaluated by comparison with the findings in other studies. In a statistic analysis based on data from a survey, Cannon et al. (2000) found that a high degree of collaboration (i.e. norms for flexibility, reciprocity, solidarity, mutuality, restrain of power) was positively correlated with the perceived performance (i.e. quality, technical support, price, time) for contractual exchange in dynamic and/or complex environments (e.g. frequent changes in conditions, technology, prices). This study furthermore found that formal mechanisms for contract management could only partly substitute for good collaboration and could even worsen performance if formal aspects of the contract were detailed in length and collaborative aspects were in poor condition. Similar results can be found in later studies by Fernandez (2007) and Poppo and Zenger (2002).

If we perceive green-space maintenance as taking place in a degree of complex and/or dynamic societal and natural environment, the merits of an extended framework for contract management of green-space maintenance are sustained.

The findings on motivation also fit in with theory and studies on human motivation. Simple and trivial work perceived as purely instrumental may be most effectively managed by extrinsic incentives and regulations (Lazear, 2000). However, extrinsic incentives become inadequate for managing work that demands autonomy and competence (Frey, 1997) or what Herzberg et al. (1959), in distinction to ‘hygiene’ factors, identified as motivational factors intrinsic to work itself. This means that work should sufficiently challenge and utilise the abilities (competence) and responsibilities (autonomy) of a worker. The failure to do so would result in increased dissatisfaction and motivational problems. This was observed in phase two of the intervention and confined in phase three. Aspects of public service contracting and motivation in the context of urban green-space maintenance have been explored in detail by Lindholst (2007).

Afterthoughts on research method

Compared to a normal case study approach, the action research approach improved the interpretation of the data and generated insights that otherwise would have gone unnoticed. The input produced for practice (Table 2) and the subsequent interpretation identified the aspects and questions underlying the actions of the Agency (Table 3). The paper also illustrates how management consultancy and research can be integrated through the choice of methods to sustain a production of knowledge with relevance beyond the immediate context in which it was produced.

Action research is still dependent on the recognition and usefulness of the research output in the context the research was conducted. In the intervention, the recommended PM scheme was not fully implemented. This may indicate problems in the planning and execution of the intervention. Problems with regard to various dilemmas were coped with by explicit acknowledgement and reflection in the first phase. My personal experience of the intervention suggested that action research needs a good deal of negotiation and/or political skill to sustain the ongoing research process. With hindsight, improved skills might have enabled a more complete implementation of my recommendations in phase three. To put it in Aristotelian terms, the research methodology chosen not only needs to be rooted in ‘logos’, but in addition requires the use of ‘pathos’ before the research can comply with a scientific ‘ethos’. In this way, action research sharply contrasts with the detached role of the researcher in more positivistic and/or traditional research approaches.

Future research

Despite the societal and ecological value of urban green spaces, there is a compelling lack of reported research on how urban green spaces are managed and maintained. The paper helps to address a deficit in the current understanding of management of green-space maintenance by contracts. The research focused on the
relationship between a client and contractor. In the perspective of emerging partnership approaches in the public sector (e.g. Bovaird, 2004, 2006) and within urban green-space management (e.g. Jones, 2002) future research may target how other stakeholders can be integrated in more decentralised approaches to the management and maintenance of urban green space by contract. This may include how different kinds of performance measurements make sense in the context of urban green-space management and how the competencies and resources of various stakeholders can be integrated to a greater extent.

Each of the four new tenets and how they may be dealt with may also be explored in detail in future research. In particular, viewing green-space maintenance contract as an instance of inter-organisational collaboration (e.g. Hardy et al., 2003) or relational contracting (e.g. Ring and Van De Ven, 1992, 1994) may open up new productive perspectives on contract design and management.

**Is an extended framework a good idea?**

The paper sustains a conclusion in favour of the prospects of an extended framework for improving management of green-space maintenance contracts. In addition to the four ‘old’ tenets of specification, pricing, monitoring and enforcement, the contract should include a focus on the four ‘new’ tenets of coordination, communication, motivation and restraint of power. The intervention simultaneously showed that the formalised management of these aspects in the Agency’s PM scheme could only partially sustain intentions and objectives. However, the reflections generated in the intervention also suggested how these aspects could be dealt with more effectively. The five-point proposal generated in the intervention can be used here as a reference point for designing and managing future contracts in a way that acknowledges the four new tenets. The true value of the Agency’s PM scheme may be found in this conclusion.

**Moving beyond NPM**

The merits of the public policy reforms of NPM that initiated contracting-out as a practice in urban green-space management can be evaluated in the perspective of the conclusions and the Agency’s contracting history. In an initial stage, reforms improved efficiency by displacing a long-standing in-house arrangement in favour of fully market-based service provision managed by a standard approach to contracting. In a second stage, the practice of urban green-space management, as exemplified by the Agency, moved beyond the content of initial NPM reforms. Now, inspiration for future improvements must be found elsewhere. In this perspective, the paper reflects the paradoxes inherent in an ‘middle-aged’ NPM (Hood and Peters, 2004) and points a way forward for still more effective design and management of contracts for green-space maintenance in the future.

**Acknowledgements**

The paper is a part of the research output from the Ph.D. project “Partnership Contracting in Public Park Management?”, Forest and Landscape, University of Copenhagen, Denmark. The research has been co-financed by HedeDenmark A/S, the Danish Road Directorate, and Faculty of Life Sciences, University of Copenhagen, Denmark. The author is grateful to Jens Balsby Nielsen for facilitating the research within the Palaces and Properties Agency and the two peer-reviewers for invaluable and productive comments. For contribution, and support the author would also thank Carsten Damgaard, Søren Gludsted, Thomas B. Randrup, and colleagues at Forest and Landscape, University of Copenhagen.

**References**


