Sustainable Management of Rented Housing

Hugo Priemus

The housing stock in the Netherlands is managed by social landlords (40.5%), commercial landlords (11.3%) and owner-occupiers (48.2%). In the rented sector the efficiency of housing management is improving. The relation between sustainability and housing management is still in its infancy. An overview is given of the possibilities of sustainable management of rented housing.

Sustainability has been a key political issue in the Netherlands, especially since 1989, when the National Environmental Policy Plan was published (Department of Housing, Physical Planning and the Environment, 1989). The environmental ambitions were even strengthened a year later in the National Environmental Plan Plus of a new centre-left government (Department of Housing, Physical Planning and the Environment, 1990). Both documents identified goals and initiatives for sustainable building (Priemus, 1992). In 1995 the Secretary of State of Housing published his Plan for Sustainable Building (Tommel, 1995) in which he states that the time has arrived that sustainable building can be realized on a large scale.

When the policy is to be implemented, emphasis still lies on new construction. The environmental quality of the existing housing stock is systematically underexposed. This is not a good idea, since it is precisely in the older stock that many environmental defects occur (Priemus et al., 1996). The deficiencies could be removed by renovation. At the same time, it would be possible to make considerable improvement in the sustainability of the environment by using sustainable strategies and structures in environmental planning (Tjallingii, 1996).

The housing stock in the Netherlands consisted of 5,959,400 dwellings on 1 January 1994. Table 1 shows the breakdown according to tenure, dwelling type and period of construction.

The proportion of owner-occupied units has risen steadily since 1945 and will soon exceed 50%. This sector has very few flats.

The social rented sector is dominated by housing associations. Their position was established long ago in the 1901 Housing Act. The prewar segment of the commercial rented stock is primarily in the hands of private landlords

Table 1. Housing stock in the Netherlands by tenure, dwelling type and age, 1994 (row percentages)

	social rented %	commercial rented %	owner-occupied %	total %
Before 1945	19.4	19.9	60.6	100.0
1945-later	47.1	8.6	44.3	100.0
Total	40.5	11.3	48.2	100.0
One-family dwellings	29.6	6.9	63.5	100.0
Multi-family dwellings	64.9	21.1	14.0	100.0

Source: CBS, Housing Demand Survey 1993/1994.

with a small number of holdings (5 or 6 dwellings on average). Especially after 1960, institutional investors played an active role in renting out dwellings.

An investigation into technical quality (Quist & Van den Broeke, 1994) has shown that the worst quality is found in the older segment of the stock. This segment also turns out to have the worst environmental quality too (Priemus et al., 1996). When the figures are corrected for age differences, the structural quality proves to be worst in the commercial rented stock. The quality of the social rented sector is just about the same as that of the owner-occupied sector.

This paper describes how managers in The Netherlands deal with the environmental quality of their housing property. For that purpose a survey was conducted in April 1993 among commercial landlords and social landlords (for an account see Quist & Van den Broeke, 1994: 84).

The goal of the survey was to investigate whether and how housing managers take environmental measures in the management of the housing stock. This relates to technical environmental improvement strategies: a complex of technical measures aimed at improving the environmental quality of the housing stock in the long run.

Another goal of the survey was to examine the position of tenants with regard to sustainable management of rented housing. The background of the survey was to find bottlenecks in the implementation of environmental policy, as far as housing management is concerned.

Survey - methods and reliability

In order to select social landlords, a sample was drawn from the housing data bank. This database covers all housing associations and municipal housing companies that are currently active in The Netherlands.

In order to draw a sample of commercial landlords, use was made of a database compiled by the B&A Group in 1990 for an investigation of dwelling improvement. While it does provide an overview of the commercial landlords operating in The Netherlands at present, the list is not complete. Unfortunately, a complete listing was not available.

The survey design was based on the expectation that 50 percent of the social landlords and 30 percent of the commercial landlords would return the questionnaire.

The net response of commercial landlords is quite different from the valid response, which denotes the number of questionnaires that were filled in properly and could be used. This discrepancy is due to the fact that the mailing list we used was not up to date (a 1990 list). Of the 306 that were mailed out, 38 questionnaires were returned to sender. Furthermore, it turned out that 18 of the commercial landlords who received a questionnaire are no longer in the housing rental business. Another explanation for the large discrepancy is that ten commercial landlords refused to cooperate. The main reason they gave was lack of time.

Among the social landlords, one of the housing associations and four of the municipal housing companies that were sent a questionnaire turned out to be either defunct or dormant. One of the social landlords did return documentation on environmental policy but did not fill in the questionnaire. In addition, ten of the social landlords did not have the time to take part in the survey.

Ultimately, the valid rate of response among commercial landlords was 23 percent; social landlords had a 44 percent rate of response. For both groups, the proportion of useful questionnaires was thus lower than the expected (and hoped) figures of 30 and 50 percent, respectively.

The questionnaire to the municipalities deals with the integration of two policy fields: the management of housing and the environment. It was decided to address the correspondence to the person in charge of policy at the

housing department. The reason to single out that slot is that the questionnaire brings up a variety of items specific to housing provision (such as performance agreements and subsidy regulations). Just to make sure the envelope would end up on the right desk, a phone call was made to the authorities in each of the selected municipalities to ask who would be most capable of answering the questionnaire. On the basis of that round of calls, it was considered best to send the questionnaire to the environmental department in a few instances. Some municipalities have brought the two policy fields of housing and the environment into one department. Incidentally, it seems that in many municipalities, the questionnaire was answered in consultation with someone from the environmental department (or, as the case may be, with someone from the housing office).

In the light of previous findings (Companen, 1992), it was assumed that the size of the municipality would influence the degree to which and the means whereby the local authorities have developed an environmental policy for the management of the dwelling stock. Accordingly, the size of the municipality was taken into account in drawing the sample. Partly because there had been contact by phone prior to sending out the questionnaires, a net response rate of 50 percent was anticipated. In order to make reliable generalizations, it was necessary to approach 159 municipalities, given the expectation that 50 percent would respond. Those 159 municipalities were selected on the basis of a random sample and distributed in April, 1993.

Table 2. Reactions of commercial and social landlords to propositions on environmentally aware housing management

	agree %		disagree %		unknown/ do not know %	
	C	S	C	S	C	S
It is the task of a manager to realize a social goal such as a cleaner environment	61.4	81.1	19.3	17.1	19.3	1.8
Financial considerations weigh more heavily than environmental considerations at all times	32.5	14.4	45.8	75.7	21.7	9.9
Environmental considerations will in the future play a greater part in stock management than is now the case	72.3	93.7	10.8	6.3	16.9	0.0
Considerations of prestige play an important part in the decision to take environmental measures	14.5	16.2	69.9	82.9	15.7	0.9
Managers must not operate on a wait-and-see, subsidy-following basis, but must themselves actively initiate environmental policy	34.9	78.4	43.4	15.3	21.7	6.3
Practising environmentally aware management is certainly possible in the present circumstances (legislation/knowledge)	55.4	73.0	21.7	18.0	22.9	9.0
C = Commercial landlords N = 83, S = Social landlords N = 111						

Source: OTB sustainability survey: landlords, 1993

In total, 62 percent of the selected municipalities responded to the survey, and 57 percent filled in the questionnaire appropriately (valid response rate). The remainder (n=5) replied that they were not going to take part in the survey, mainly due to lack of time.

The rate of response (both net and valid) is fairly uneven, increasing with the size of the municipality. Most striking is the response by municipalities with a population of 50,000 to 100,000; at 46 percent, their rate of response is below average. Nevertheless, the response of that category is still close to the expected and desired rate of 50 percent. There is thus virtually no doubt about the outcome of thesurvey to the municipalities.

What do managers think of environmentally aware housing management?

Six 'provocative' propositions were submitted to the managers, on the one hand about the importance of an environmental policy in stock management, and on the other about the possibility of following an environmental policy. The respondents could indicate whether they agreed or disagreed with the propositions. They were given the following propositions on the importance of an environmental policy:

- it is the task of a manager to realize a social goal such as a cleaner environment;

- financial considerations weigh more heavily than environmental considerations at all times;
- environmental considerations will in the future play a greater part in stock management than is now the case;
- considerations of prestige play an important part in the decision to take environmental measures;
- managers must not operate on a wait-and-see, subsidy-following basis, but must themselves actively initiate environmental policy.

The sixth proposition relates to the possibility of an environmental policy:

- practising environmentally aware management is certainly possible in the present circumstances (legislation/ knowledge).

Table 2 shows that the commercial and social landlords are strikingly unanimous in their reaction to the propositions stated. However, one proposition is expressly excepted from this. Of the commercial landlords, 43% do not agree with the proposition that managers must themselves actively initiate environmental policy themselves. Of the social landlords, a large majority (78%) precisely agree with this proposition.

As many as 61% of the commercial landlords regard it as their task to realize a social goal such as a cleaner environment. Of the social landlords, 81% are of this opinion.

For only a small percentage of the landlords does prestige form an argument for taking environmental measures.

Less than half (46%) of the commercial landlords prove to disagree with the proposition that financial considerations weigh more heavily than environmental considerations at all times. And yet for 32.5% of the commercial landlords finances are always decisive for management policy. The social landlords let the financial considerations weigh less heavily.

We agree with the conclusion of Svane (1996) that economy can be seen both as a motivating factor and an obstacle. Some measures (such as water and energy saving) reduce costs. Other measures (such as the replacement of asbestos) call for investments and increase life time costs.

The reaction to the propositions makes it clear that a majority of both social and commercial landlords consider it important to let environmental considerations play a part in management decisions. Both categories of landlords are of the opinion that such environmental considerations will play a greater role in stock management in the future than is the case now. However, it is also clear that proportionately more social than commercial landlords subscribe to the importance of the integration of environment and stock management.

Are landlords of the opinion that following an environmental policy is also possible? The replies show that 55% of the commercial landlords think that environmentally aware management is certainly possible in the present circumstances. And this view is subscribed to by nearly three quarters of the social landlords.

Housing management environmental objectives and measures

The great majority of the commercial landlords (88%) indicate that they have no environmental policy for management of the stock. Of the social landlords too the majority (62%) have not formulated an environmental policy.

It has been investigated in which policy documents the managers have laid down environmental policy. For the commercial landlords the standard programme of requirements is by far the most important document. This means that these landlords have imposed environmental requirements on the performance of renovation (sustainable renovation).

Among the social landlords the picture is more diverse. Here the environmental policy plan is important (44%). The standard programme of requirements scores equally high (44%). And nearly one in three social landlords has included environmental rules in the maintenance specification. Evidently social landlords devote attention to both the formulation of environmental objectives and the concrete elaboration of these intentions.

The extent to which landlords actually take environmental measures in the practice of housing management differs between commercial and social landlords. No less than 94% of the social landlords make allowance for the environment. Of the commercial landlords, 59% take environmental measures. They lag behind the social landlords, but a clear majority is nevertheless involved.

Explicit formulation of goals and taking measures prove to differ strongly. In itself this is not so very surprising. Housing managers can take concrete environmental measures very well, without explicit environmental objectives (of the housing manager) being

Table 3. Reasons for taking no environmental measures

	commercial landlords %	social landlords %
Environmental quality of the stock requires no intervention	70.4	42.9
Environmental policy is already formulated but must still lead to concrete measures	0.0	0.0
Policy is directed towards affordable rents for the target groups	14.8	28.6
No subsidies available	14.8	0.0
No own resources available	11.1	14.3
Tenants refuse rent increase	14.8	14.3
The organization accords no priority to the environment	14.8	28.6
Insufficient knowledge available	11.1	11.3
Insufficient capacity available	7.4	14.3
Improvement of the environment by intervention in the stock is outweighed by the environmental burden of this intervention	0.0	14.3
Others	7.4	0.0
Commercial landlords N = 27, Social landlords N = 7		

Source: OTB sustainability survey: landlords, 1993.

Table 4. Application of a number of concrete environmental measures

	commercial landlords %	social landlords %
1. Fitting insulation	83.3	96.2
2. Installing energy-efficient central heating boilers	64.6	89.4
3. Tackling damp problems	58.3	79.8
4. Painting with waterborne paint and high-solid alkyd resin paint	45.8	58.7
5. Removal of asbestos	45.8	68.3
6. Use of materials with a low environmental burden	33.3	51.9
7. Fitting water-saving shower heads	25.0	28.8
8. Not using tropical hardwood	18.8	29.8
9. Measures for passive solar energy	4.2	8.7
10. Tackling too high radon concentrations	2.1	4.8
11. Installing solar boilers	0.0	5.8
– Others	8.3	8.7
Commercial landlords N = 48, Social landlords N = 104		

Source: OTB sustainability survey: landlords, 1993.

pursued in this way. Housing managers are after all obliged under statutory regulations to guarantee a certain environmental quality (for instance insulation standard for rebuilding in the Building Decree).

What reasons do landlords have for taking no environmental measures at all? Table 3 gives a survey of them.

The principal reason is that the landlords argue that the environmental quality of the stock requires no intervention. This is, needless to say, a legitimate reason, but it does not explain why they do not take preventive measures. Two social landlords indicate that in the organization no priority is given to the environmental quality of the stock. They regard other housing goals as more important, e.g. affordable rents. Implicitly this means that these landlords are of the opinion that taking environmental measures and realizing affordable rents do not go together. The argument of the affordable rents is mentioned by 4 of the 27 commercial landlords. It is plausible that also in The Netherlands engaged company directors are a motivating factor, which explains the extent to which environmental measures are taken (Svane, 1996).

We shall now consider the concrete environmental interventions in the stock by landlords. For that purpose the landlords were first of all given a list with eleven concrete measures, varying from applying insulation to tackling too-high radon concentrations. In the list both improvement measures and measures for avoiding a further environmental burden are included. Table 4 gives the results.

All measures are applied by both commercial and social landlords. An

Table 5. Initiative for environmental measures

	commercial landlords %	social landlords %
Organization itself	98.0	99.0
Tenants (organization)	18.4	10.6
Local authority	26.5	23.1
Others	14.2	1.9
Commercial landlords N = 49, Social landlords N = 104		

Source: OTB sustainability survey: landlords, 1993.

Table 6. Municipal environmental policy for housing management?

Municipal category	yes %	no %	total %
0 – 20,000	7.4	92.6	100.0
20,000 – 50,000	12.1	87.9	100.0
50,000 – 100,000	12.5	87.5	100.0
> 100,000 + 4 large cities	42.9	57.1	100.0
Total	15.6	84.4	100.0
N = 90			

Source: OTB sustainability survey: local authorities, 1993.

exception is formed by the installation of solar heaters by commercial landlords. The social and commercial landlords are strikingly unanimous in the extent to which these measures are applied. The top six of the environmental measures most often taken are the same for both categories.

It is clear that more social than commercial landlords apply the measures listed. Thus 96% of the social landlords fit insulation facilities in the stock, against 83% of the commercial landlords. Energy scores the highest. Both the first and the second measure relate to this.

The measures of the housing managers, in this long-standing important field for housing, are fairly traditional and partly also laid down by law (fitting insulation). More inventive and newer forms of energy-saving, like utilizing passive and active solar energy, are hardly used. Tackling damp problems, the third common measure, is an old task of managers, which proceeds from defects in the physical aspects of building. Measures that derive from the recent insight that housing management has many environmental consequences are applied less frequently (measures 4, 5 and 6). It may be concluded that a large number of the environmental measures that landlords apply are both traditional and legally prescribed. Social landlords are, however, always more active and progressive in all fields than the commercial landlords.

Before landlords take environmental measures, someone must take the initiative. Table 5 shows whether the landlord does that himself or whether the incentive to do this comes from others. Nearly all commercial and social landlords take initiatives themselves to introduce environmental measures. But impulses also come from the local authority.

About one in four landlords states that the local authority also takes initiatives to arrange that landlords remedy or obviate environmental problems. Only in a limited part of the cases (11 to 18%) does the initiative come from tenants. In addition the commercial landlords also mentioned principals, contractors and architects as initiators ('others' category).

Municipal environmental policy and housing management

In the survey to municipalities, the local authorities were asked whether they have an environmental policy for housing management. Do local authorities pursue sustainable maintenance and renovation of dwellings by the various managers? The concept 'policy' has been broadly defined in the questions: from giving information up to and including applying prohibitory regulations. In this way policy relates both to explicit policy formulation in plans and to concrete activities.

Table 6 shows that the size of the local authority influences whether they have an environmental policy for housing management. The small local authorities (< 100,000 inhabitants) are not very active. Of the local authorities with 0 to 20,000 inhabitants, no less than 93% state that (except for

existing statutory obligations) sustainable maintenance and renovation of the housing stock are not pursued. The medium-sized (> 100,000 inhabitants) and large local authorities are more than averagely active in this field.

Position of tenants

In the owner-occupied sector the occupiers are simultaneously owners and managers. In the rented sector the roles of owner and user are separate, whereby the user has co-managerial tasks. The primary responsibility for sustainable housing management lies here with the landlords. Tenants can themselves make a contribution to sustainable habitation by heating their homes sensibly and not leaving doors and windows open unnecessarily. Experience with sustainable housing projects, especially designed to improve sustainability, shows that energy consumption of the tenants in these dwellings is above-average (Hertz, 1996). Apparently there is a tension between the ambitions of architects and the behavior of occupiers.

If tenants want to promote sustainable housing, they can put landlords under pressure to increase the sustainability of their dwelling. What instruments do tenants have available?

The basis for the relationship between landlord and tenant is the lease. A new model lease better attuned to the requirements of sustainability could be drawn up between the national organization of tenants and the umbrella organizations of social and commercial landlords.

If a dwelling does not satisfy the technical building requirements formulated in the national Building Decree, the municipal executive must order the owner to take measures. These requirements regarding dwellings in the stock are incidentally very vaguely formulated. If a dwelling has a basic defect (such as moisture penetration) a Dutch tenant can enforce a rent freeze and sometimes even a rent reduction. Not until the defect has been remedied by the landlord may the rents be raised.

The Netherlands recently introduced a subsidy scheme. From 1 January 1996 a grant of on average Hfl. 2500 (about 1600 US dollars) per dwelling is available for making technical environmental improvements in the stock. This relates to environmental improvements in 55,000 existing dwellings. Since 15 December 1995 the Energy Performance Standard has been in force to raise the energy quality in new construction and rebuilding (Boelhouwer et al., 1995).

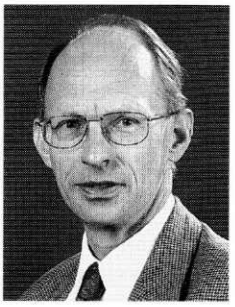
Apart from the policy of ordering measures to be taken to deal with defects, the law does not oblige landlords to invest. Tenants cannot compel landlords to invest in the dwelling to improve the environmental quality. There is a problem here, because tenants profit from the improvement of the energy quality of the dwelling, for which in general the landlord must invest. If a landlord makes an environmental investment in the dwelling, he can as a result ask for a rent increase. Occupiers can oppose this. If an operation involves a whole estate, in practice agreement by some 80% of the tenants is needed, if the landlord is to be enabled to make the investment and go ahead with a rent increase for all tenants. In practice this often leads to a stalemate. Either the landlord does not want to make any investments in the housing stock to improve the environmental quality, or some (more than 20%) of the residents resist and thus block the taking of environmentally friendly measures.

Thought could be given to widening the grounds for the policy of ordering measures to be taken and raising the minimum environmental quality of dwellings in the stock. Thought could further be given to entitling tenants to urge landlords to improve the environmental quality if the expected saving on heating costs is (about) as high as the rent increase as a result of the environmental investment. In such cases a minority of tenants ought not to be allowed to block such an investment with a veto.

Concluding remarks

Although many are convinced of the advantages of a good environmental quality of dwellings, local authorities in the Netherlands prove as yet to engage in few activities to promote improvement of the environmental quality of dwellings. Landlords are found to be much more active, but there are great differences between social and commercial landlords: the social landlords are more active than commercial landlords on this point. In this connection the two national umbrella organisations of social landlords (NWR and NCIV) play a stimulating role. The State furthers environmentally aware management of dwellings by encouraging experiments and selectively subsidizing environmental investments in the stock. The position of tenants is weak if it is a matter of improving the environ-

mental quality of dwellings. In general landlords cannot be forced to invest in the environmental quality of dwellings. Thought ought to be given to strengthening the position of tenants on this point.



Hugo Priemus,
educated as an architect
and economist,
is professor of housing
at Delft University of Technology,
the Netherlands. He is managing
director of OTB Research Institute
for Policy and Technology
at the same university as well.

References

BOELHOUWER, P. J., H. M. KRUYTHOFF and H. PRIEMUS, 1995, *Beleid voor de grote stad in de toekomst* (Policy for the city of the future), Delft: Delft University Press.

COMPANEN, 1992, *Volkshuisvestingsbeleid en milieu op lokaal niveau* (Housing policy and the environment at local level), Arnhem.

DEPARTMENT OF HOUSING, PHYSICAL PLANNING AND THE ENVIRONMENT, 1989, *Nationaal Milieubeleidsplan* (National Environmental Policy Plan), Second Chamber 1988–1989, 21.137 nr. 1–2, The Hague (Sdu).

DEPARTMENT OF HOUSING, PHYSICAL PLANNING AND THE ENVIRONMENT, 1990, *Nationaal Milieubeleidsplan Plus* (National Environmental Policy Plan Plus), Second Chamber 1989–1990, 21.137 nr. 20, The Hague (Sdu).

HERTZ, B., 1996, Bewonersgedrag in Duurzaam Bouwen-projecten, (Tenants behavior in sustainable building projects), *Milieu*, nr. 4: 161–169.

PRIEMUS, H., 1992, "Housing policy and the environment in a wider Europe", *Scandinavian Housing & Planning Research, 9*, no. 1: 35–40.

PRIEMUS, H., P. J. BOELHOUWER & H. M. KRUYTHOFF, 1996, "Dubieuze voorraad. Milieubeleid vooral richten op oudere woningen" (Dubious housing stock. Environmental policy must be focussed at older dwellings) *Bouw, 51*, nr. 11, november: 36–38.

QUIST, H. J., and R. A. VAN DEN BROEKE, 1994, *Duurzaamheid en het beheer van de woningvoorraad* (Sustainability and management of the housing stock), Delft: Delft University Press.

SVANE, Ö., 1996, *Agenda 21 Practiced in Swedish Housing Management*, paper presented at the IAPS-conference 'Evolving environmental ideals, changings ways of life, values and design practices, Hasseludden (Sweden), 30 July – 3 August.

TJALLINGII, S., 1996, *Ecological conditions. Strategies and structures in environmental planning*, Wageningen (DLO Institute for Forestry and Nature Research).

TOMMEL, D. K. J., 1995, *Plan van aanpak Duurzaam bouwen* (Implementing Sustainable Building), Tweede Kamer 1995–1996, 24.280 nr. 1, 8 september, The Hague (Sdu).