

1. Title

Environmental Risk and NIMBYism

2. Keywords

NIMBYism, stakeholders, scientific risk assessment, public risk perception

3. Introduction

‘Not In My Back Yard’ - or ‘NIMBY’-ism - is the term given to *local* opposition to ‘development’ proposals that are perceived as a threat (such as landfill sites, incineration plants, chemical works, or even prisons). NIMBYism can be viewed in terms of social versus private costs (or risks) and benefits. It may occur when, in order to provide a public good (aggregate social *benefit*), a facility is located in such a way as to concentrate costs (or risks) in the hands of those who live nearby (private *costs* borne by a few).

NIMBYs may recognise the value of a potentially hazardous facility so long as it is not sited near where they personally live (Fischer 1995; Wolsink 1994). For example, Kuhn’s (1998) study showed that, amongst those who supported a proposed nuclear-fuel waste disposal facility *in principle*, a positive correlation existed between perception of risk and acceptable distance of the facility from their place of residence. Similarly, Lober (1995) describes local opposition to the siting of a recycling/waste disposal facility as ‘perfect NIMBY behaviour’. This aspect of NIMBYism is sometimes considered hypocritical or even self-contradictory - a dysfunctional social ‘syndrome’, based on ‘irrational’ fears, which policy makers would be justified in ignoring (Freudenberg and Pastor 1992).

Other studies, however, suggest that the grounds for local opposition to facilities often do not mainly reflect NIMBY attitudes at all. Hampton (1996), for example, studied opposition to the construction of an armaments complex in Australia. He writes that, “contrary to expectation, distance of respondents’ residence to the location of the proposed facility was not associated with opposition or support for the facility”. Similarly, Hunter and Leyden (1995) found little evidence of NIMBYism with respect to hazardous waste incineration. Rather than concern about property values and aesthetics (usually regarded as characteristic NIMBY attitudes), they found that opposition related more to a lack of trust in government, fear of health consequences and other ‘ideological and demographic factors’ such as age, gender, education and income. While some of these factors may be localised (such as fear of health consequences), they argue that such concerns are *not* illegitimate, irrational or selfish, in the way that property value or aesthetic concerns are sometimes claimed to be. For waste disposal facilities, Lober (1996) has likewise proposed that NIMBYism (defined narrowly in terms of cost-benefit analysis of siting outcomes) provides an inadequate explanation of public attitudes. And Wolsink (1994) has argued, in a similar vein, that opposition to hazardous developments is often unrelated to proximity. The expression ‘Not In *Any* Backyard’ - or ‘NIABY’-ism - has been used in cases where people oppose a development, not on grounds of self-interest (excessive private costs), but because they question its wider benefits (minimal social benefits). This includes, for example, people who oppose nuclear power in favour of alternative forms of energy.

4. Aim

This TLR introduces students to the idea of NIMBYism. It aims to develop a critical understanding of its origins and deployment in debates about social versus private environmental costs and benefits - especially its use by policy makers, in conjunction with scientific risk assessments, to justify overriding local public opposition to the proposed siting of hazardous facilities.

The TLR also encourages students to think, more widely, about the differences and similarities in *public* and *scientific* accounts of risk.

5. Learning outcomes

After successfully completing this TLR, students should:

- Be thoroughly familiar with the idea of NIMBYism, including its possible relevance for explaining local public opposition to the proposed siting of hazardous facilities and its critique (including that of NIABYism).
- Be able to appreciate factors affecting, and differentiating, public and scientific accounts of risk.
- Be able to use stakeholder analysis to examine the interests that different groups (e.g. the public, politicians, industry, environmentalists) have in claiming different levels and types of risk.
- Be able to assess the extent to which various groups' views of nature and risk fit Douglas' categorisation system.

6. Pre-requisites

It is recommended that [Environmental Risk: A Philosophical Analysis](#) be adopted as a pre-requisite for this TLR. In particular, students should be familiar with the arguments in [Annex A](#) (which accompanies both TLRs). Other TLRs may also be used in this way, notably:

- [Guidelines for Investigative Environmental Research](#)
- [In-depth Interviewing for Investigative Environmental Research](#)

See below, [How to use TLR](#), for further details. Students should also be capable of *active* learning, including participation in group discussions and plenary feedback sessions.

7. How to use TLR

Stage 1: Background Knowledge

[Annex A](#) (attached) and sources cited in the list of [Recommended reading](#) (below) should be used selectively as background reading, depend upon which class exercises are undertaken at Stage 3.

For exercise 1, students need to be clear on the differences between NIMBY and NIABY perspectives. This are briefly outlined in the [Introduction](#) (above), but see also Wolsink (1994) or Lober and Green (1994) for more detailed accounts.

For exercises 2, 3 and 4, see Sections 1- 4 of [Annex A](#).

For exercise 5, the ODA (now Department for International Development - DFID) guidelines for Stakeholder Analysis may be helpful. These can be obtained free of charge by ringing 0171 917 7000.

For exercise 6, which relates to Douglas' views on nature and risk, see Section 5 of [Annex A](#), along with Dake (1994) or Harrison and Burgess (1994).

Stage 2: Case Study Evidence

Students or tutors should obtain information on the *public and scientific accounts of risk associated with a specific facility* (either proposed or in existence), by following one or more of the courses of action below:

1. Quotations and other material, which illustrates the public and scientific accounts of risk, could be obtained from a relevant public enquiry report. Reports can be purchased from the Health and Safety Executive, by ringing their 'Books Department' on 01787 881165. Alternatively, for a complete catalogue of British Official Publications from 1980 to the present, visit HMSO's 'virtual bookstore' at www.ukop.co.uk (subscription service only).

2. Local residents' assessments of risk could be ascertained through *primary* semi-structured interviewing or focus groups (see [Guidelines for Investigative Environmental Research](#) and [In-depth Interviewing for Investigative Environmental Research](#) TLRs). Care should be taken to design questions/topics of conversation which can be used to directly address the questions at Stage 3 (below). Alternatively, it may be possible to obtain an existing written account which reflects local views, such as the minutes of a residents' group meeting. Local authorities may be of assistance in providing information about local resident groups.

3. A 'generic' risk assessment for the relevant technology or process may be obtainable from a private consultancy firm or the Environment Agency, or may be published as a journal article.

4. Whichever of the above is/are chosen, it may be worth undertaking a site visit so that students gain first hand experience of the facility under consideration. Some existing facilities (such as nuclear power stations) offer guided visits, which may portray the industrial point of view.

Stage 3: Class Exercises

Drawing on the knowledge acquired at Stages 1 and 2, students could undertake any number of the following exercises:

1. Examine the extent to which local opposition can be understood from a NIMBY and/or a NIABY perspective.
2. Assess the nature and extent of divergence between the public and the scientific accounts of risk.
3. Identify those factors which may have influenced the public's assessment of risk.



4. Examine those factors which may have influenced the scientific assessment of risk.
5. Conduct a stakeholder analysis to discern the interests and levels of influence of the various groups involved.
6. Use Douglas' classification to assess the various interest groups' 'views of nature'.

Tutors could run these exercises in a number of possible ways. They could split the class into groups of (perhaps) 4-6 students, and allocate one exercise to each group; or all groups could be required to address two or more of the same exercises. In either case, the whole class should convene to discuss their findings and conclusions.

The time required will depend on how tasks are allocated, and also on students' familiarity with the various sources. If they have already had sufficient opportunity to examine their evidence, with respect to the questions they seek to address, 20-30 minutes per exercise is probably adequate. If, however, students are reviewing some or all information for the first time, much more time will be needed. Sufficient time should also be allocated for the plenary session.

8. Instructions to students

Tutors can provide instructions to students based on the information contained in other sections of this TLR.

9. Stimulus Material

See above, [How to use TLR](#).

10. Degree stage

This TLR is most suitable for students at undergraduate level 3.

11. Resource requirements

- 'Background knowledge' and 'case study evidence' materials.
- Teaching accommodation appropriate for discussion groups and plenary session.
- Write-on overhead transparencies and/or whiteboard to record key points from groups.

12. Preparation

See [How to use TLR](#), Stages 1 and 2. The tutor and/or students should obtain 'background knowledge' and 'case study evidence' materials in plenty of time for use at Stage 3. If primary data is to be gathered at Stage 2, then the tutor may wish to allocate additional teaching time to examine the methodological principles and practise the method, and to discuss with students the types of questions they may wish to ask.

13. Links with other TLRs

Other relevant TLRs include:



- [Environmental Risk: A Philosophical Analysis](#)
- [Guidelines for Investigative Environmental Research](#)
- [In-depth Interviewing for Investigative Environmental Research](#)
- [Environmental Risk and the Precautionary Principle](#)
- [Valuing Nature? Economics and Environmental Valuation](#)

More generally, the aims and/or learning outcomes of this TLR are related to those of other TLRs listed in the following 'thematic clusters':

- [Contested science](#)
- [Environmental risk](#)
- [Environmental economics, law and decision making](#)

14. Follow-up activities

Further reading would help to consolidate the intended learning outcomes for this TLR (see below, [Recommended reading](#)). Exercises 2-5 could be applied to the analysis of other environmental risks, i.e. not just to 'NIMBY' problems.

15. Recommended reading

The following reading list provides references for the material in this TLR, plus a few additional relevant references:

Dake, K (1992) Myths of nature: culture and the social construction of risk, *Journal of Social Issues*, 48 (4), 21-37

Dear, M (1992) Understanding and overcoming the NIMBY syndrome, *Journal of the American Planning Association*, 58 (3), 288-300

Fischer, F (1995) Hazardous waste policy, community movements and the politics of Nimby: participatory risk assessment in the USA and Canada. In F Fischer and M Black (eds) *Greening Environmental Policy: The Politics of a Sustainable Future*, Paul Chapman Publishing

Freudenberg, WR and Pastor, SK (1992) NIMBYs and LULUs: stalking the syndromes, *Journal of Social Issues*, 48 (4), 36-61

Goothuis, PA and Miller, G (1994) Locating hazardous waste facilities: the influence of NIMBY beliefs, *American Journal of Economics and Sociology*, 53 (3), 335-346

Hampton, G (1996) Attitudes to the social, environmental and economic impacts of the construction of an armaments complex, *Journal of Environmental Management*, 48 (2), 155-167

Harrison, CM and Burgess, J (1994) Social constructions of nature: a case study of conflicts over the development of Rainham Marshes, *Transactions of the Institute of British Geographers*, 19, 291-310



Hunter, S and Leyden, KM (1995) Beyond NIMBY: explaining opposition to hazardous waste facilities, *Policy Studies Journal*, 23 (4), 601-619

Kasperson, RE, Golding, D and Tuler, S (1992) Social distrust as a factor in siting hazardous facilities and communicating risks, *Journal of Social Issues*, 48 (4), 161-187

Kemp, R (1990) Why not in my backyard? A radical interpretation of public opposition to the deep disposal of radioactive waste in the United Kingdom, *Environment and Planning A*, 22, 1239-1258

Kuhn, RG (1998) Social and political issues in siting a nuclear-fuel waste disposal facility in Ontario, Canada, *Canadian Geographer*, 42 (1), 14-28

Lidskog, R and Elander, I (1992) Reinterpreting locational conflicts: NIMBY and nuclear waste management in Sweden, *Policy and Politics*, 20 (4), 249-264

Lober, DJ (1995) Why protest? Public behavioural and attitudinal response to siting a waste disposal facility, *Policy Sciences Journal*, 23 (3), 499-518

Lober, DJ (1996) Why not here? The importance of context, process, and outcome on public attitudes towards the siting of waste facilities, *Society and Natural Resources*, 9 (4), 375-394

Lober, DJ and Green, DP (1994) NIMBY or NIABY: A Logit model of opposition to solid-waste-disposal facility siting, *Journal of Environmental Management*, 40, 33-50

Luloff, AE, Albrecht, SL and Bourke, L (1998) NIMBY and the hazardous and toxic waste siting dilemma: the need for concept clarification, *Society and Natural Resources*, 11, 81-89

O'Riordan, T, Kemp, R and Purdue, M (1988) *Sizewell B: An Anatomy of the Inquiry*, Macmillan

Petts, J (1992) Incineration risk perception and public concern: experience in the UK improving risk communication, *Waste Management and Research*, 10, 169-182

Rabe, BG, Gunderson, WC and Harbage, PT (1994) Alternatives to the NIMBY gridlock: voluntary approaches to radioactive waste facility siting in Canada and the United States, *Canadian Public Administration*, 37 (4), 644-666

Slovic, P, Flynn, JH and Layman, M (1991) Perceived risk, trust and the politics of nuclear waste, *Science*, Dec 13 1991, p254

Walsh, E, Warland, R and Clayton Smith, D (1993) Backyards, NIMBYs and incinerator sitings: implications for social movement theory, *Social Problems*, 40 (1), 25-38

Wolsink, M (1994) Entanglements of interests and motives: assumptions behind the NIMBY