LULUs, NIMBYs AND ENVIRONMENTAL JUSTICE

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Bruce Mitchell
University of Waterloo
Waterloo, Ontario, Canada

University of Waterloo

1. INTRODUCTION

International Conference on Siting of Locally Unwanted Facilities:

"siting locally unwanted land uses (LULUs) is a major policy problem throughout the industrialized world"

"examine the underlying causes for facility siting impasse in Asia and other countries and to suggest ways and strategies to help resolve siting conflicts."

OBJECTIVES:

(1) examine relationship between LULUs and NIMBYs, and environmental justice,

(2) explore how governments in North America have interpreted and used environmental justice to address LULUs and NIMBYs,

(3) consider different approaches to siting LULUs.

2. LULUs, NIMBYs AND ENVIRONMENTAL JUSTICE

LULUS AND NIMBYS

'Locally unwanted land uses' (LULUs) and 'Not in my back yard' (NIMBYs):

facilities or services that society collectively requires, but usually does not view as desirable to have close to where people live, work or play.

Examples: landfill sites, incinerators, hazardous waste disposal sites, sewage treatment plants, nuclear power plants, airports.

TOADs: 'Temporarily obsolete abandoned derelict sites'

PRINCIPLES:

(Baxter, Eyles and Elliott, 1999):

LULUs normally surrounded by emotion and conflict.

Highly desirable to agree on transparent principles upon which analysis, discussion and decisions will be based.

Almost inevitable that not every stakeholder will get everything wanted or expected.

Experience indicates that if those not getting everything they wanted

- believe the process was open and transparent,
- they were heard, and
- decisions include action to mitigate or compensate for risk,

likelihood is much higher a site for a LULU will be found.

TRUST:

Key for relationships among stakeholders, especially:

- government regulatory agencies,
- siting agencies (public or private), and
- the host community.

Conflict and opposition often emerge because people in a proposed host community:

- do not trust one or both of the regulatory agency or facility proponent, or
- the proposed technology.

EQUITY:

Focuses attention on *fairness* in terms of the social and spatial distribution of environmental risks.

Distributive equity relates to distribution of benefits and costs upon and among different groups in a host community.

Normal approach is to compensate host communities, usually through financial incentives (tax relief, new or enhanced community facilities).

Procedural equity involves modifying processes used for risk prevention, control and mitigation.

PUBLIC PARTICIPATION:

Must be more than providing information to the host community about the siting process and possible risks.

Should mean systematically including the public into the decision-making process.

Various degrees of participation lead to different degrees of control by the public:

Procedural control:

Influence related to the structure and implementation of the general decision-making process.

PUBLIC PARTICIPATION (cont'd):

Locational control:

Authority to decide whether or not to accept a site for a LULU.

Facility control:

Opportunity to accept the need for, and scale and operating characteristics of, a LULU.

Allocating some control to the host community or general public frequently represents a significant change in power and authority relationships.

Desire or determination by regulatory officials to retain all authority usually a barrier to building stronger trust and achieving equity.

PROCEDURES

(Barbalace, 2001)

Communities usually oppose a hazardous waste facility within or adjacent to their community for two main reasons:

- risk to health,
- devaluation of property values.

A positive view may emerge if communities believe a waste facility will improve:

- the local economy,
- quality of life.

REVERSE DUTCH AUCTION

Auctioneer proposes a minimum compensation for a community to accept a LULU.

Minimum bid advertised for a set period of time (e.g., a month).

If no bids received, the bid is raised for another set period. Then, if no bid still received, the amount is raised again, and so on.

Each community wants maximum compensation.

If a community waits too long for the bid to go higher, another community might submit a bid and become the host for the LULU.

Pressure on potential host communities to be prepared to make a decision before another community becomes the successful bidder.

Not only the community which becomes the host for a LULU could bear negative impacts from a LULU.

Other neighbouring communities could be exposed to risk if:

- noxious materials were to be transported through them by rail or by truck,
- air-borne contaminants from the facility fell on them, or
- aquifers or soils could be polluted from contaminants escaping from the site and migrating through subsurface processes.

Solution: two-step referendum process, following the Reverse Auction Procedure.

Step 1: referendum for all residents living within a specified radius of the facility site.

Step 2: referendum for all residents of the appropriate local government area in which the facility site would be located.

If the proposal for a site passes both referenda, third stage is assessment of needs in the community, geological conditions at the site, and any other relevant considerations.

Advantages:

Ensures a facility is ‘wanted’ by those living in or near to its site.

Limitations:

Barbalace (2001: 2):

“The only question would be whether [it] would achieve environmental justice or entice an impoverished community to accept something that they didn’t really want in order to achieve certain economic advantages.”

ENVIRONMENTAL JUSTICE

US Environmental Protection Agency (EPA, 1997):

"… the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies."

'Fair treatment': no group of people should bear a disproportionate share of negative environmental consequences from industrial, commercial or municipal operations, or from the implementation of federal state, local or tribal policies or programs.

Friends of the Earth (FOE):

“Environmental justice means: quality of life for all – everyone should have a safe and healthy place to live, work and play; enough for us and the future – we need to make sure there are enough resources for all of us and future generations.”

“unfortunately, there are many examples of environmental injustice”

“it is usually the poorer communities that suffer the most from more pollution …, habitat loss …., health problems …., climate change …..”

Warren County, North Carolina, 1982

Concept of environmental justice emerged in 1982 regarding a hazardous waste landfill site in Warren County, North Carolina, USA.

Protest against a decision to establish a landfill site for PCB-contaminated soil to be removed from 14 different places in the state.

Landfill site adjacent to a small, low income community whose residents were predominantly African-American.

One outcome: a study by the US General Accounting Office, focused on eight southern states, to determine any association between the location of LULUs or NIMBYs and the racial and economic status of nearby communities.

Findings: three of every four such land fills sited in or close to minority communities.

Subsequent studies confirmed this pattern, and then emerged the concepts of:

- environmental justice,
- environmental equity, racism and classism.

President Clinton Executive Order, 1994

February 1994: Executive Order 12898, *Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations*.

"each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions."

Responsibility for coordinating inter-agency initiatives regarding environmental justice given to the Environmental Protection Agency.

At least four states (California, Florida, Texas, Washington) have created environmental justice commissions:

"to evaluate the degree of environmental inequity in their states and propose changes in environmental policy to reduce any observed inequity."

Similar initiatives at the municipal level.

Environmental Justice: international dimension

Environmental justice not confined to ‘local issues’.

Due to increased restrictions on disposal of toxic wastes in developed countries, combined with growing opposition to toxic waste sites, governments and private waste management companies seek alternative sites in other countries.

Target countries: “the politically and economically less powerful nations of the world”.

Attraction for governments in such nations is:

- substantial payments to receive toxic wastes, and
- opportunity to create employment opportunities in building and operating the waste sites.

Advocates of environmental justice argue it is not an acceptable solution to deal with national or domestic LULU or NIMBY problems in developed countries by moving the contentious material or facility to a developing country.

3. CANADIAN APPROACHES TO LULUs AND NIMBYs: WASTE MANAGEMENT

Approach moved from ‘traditional’ to what are termed ‘voluntary’, ‘open’ or ‘willing host’.

> “Siting waste management facilities has become a conflict-ridden process characterized by massive public opposition, disagreement over the environmental impacts of the facilities, and a general lack of faith in the traditional regulatory or ‘closed’ approach to facility siting. Dissatisfaction with traditional methods has led to the emergence of a new approach that emphasises co-operation over conflict.” (Maclaren, 2004: 391)

One key difference between traditional and voluntary approaches:

Traditional approach: a wide-ranging search conducted across a region to identify a site that best satisfies technical criteria, without regard to whether the relevant local community has indicated willingness to be the host.

Voluntary approach: emphasis on identifying a willing host community which contains at least one site satisfying technical criteria.

COMMON STEP ONE:

A general region or area is identified within which the search for a site is to be conducted.

Key factors in determining the extent of the host area include:

- where waste is generated,
- limits on how far the waste can be transported, and
- whether there are any political boundaries (municipal, provincial, national) across which the waste could not be moved.

Once this task is completed, the two approaches diverge.

TRADITIONAL APPROACH:

Step Two: ‘constraint mapping’.

Using environmental protection criteria (e.g., hydrological, soils, land use), planners map the entire region to eliminate areas not satisfying minimum thresholds related to the criteria.

Step Three: detailed analysis of data for areas passing constraint mapping.

TRADITIONAL APPROACH (cont'd):

Another set of screening criteria used to identify specific potential sites.

Examples: minimum area of land, avoidance of areas designated as environmentally sensitive.

Step Four: comparative assessment of possible sites to identify best site relative to biophysical, economic and social criteria.

TRADITIONAL APPROACH (cont'd):

Prior to this stage, decisions needed regarding whether all criteria have the same value, or are allocated different weights.

Limitations:

Identification of possible sites and choice of the best site are influenced to a large extent by scientific and technical criteria and considerations, with social and psychological aspects often ignored because of difficulties in measuring them.

TRADITIONAL APPROACH (cont'd):

Professionals with technical expertise, normally make most of the decisions throughout the siting process regarding which criteria to use and what their weights will be.

Result: alienation of the general public, leaving it feeling powerless and not engaged in a meaningful way.

Common outcome: a site meeting all technical criteria is identified but then is rejected by local communities, often due to dissatisfaction over the process more than due to possible negative environmental risks.

Voluntary, Open, Willing-host Approach

Voluntary approach can be the same as the traditional approach in that area screening is used to narrow the number of possible host communities.

But, voluntary approach may not use constraint mapping at all, or only apply it after a willing host community has emerged.

Once this aspect has been determined, the voluntary and traditional approaches are notably different.

Principal feature: deliberate choice to seek co-operation with the general public, as well as to find a site in or adjacent to a willing community.

A community can withdraw from the siting process at any stage.

Step one: regional meetings at which local communities can learn about the proposed facility as well as about the siting process.

After such meetings, communities have the option of expressing initial interest in being included as a possible host.

Step two: For communities expressing interest, more detailed information meetings are arranged.

If, after the second round of meetings, elected officials in a community still interested, then detailed investigations begin to see if there is a suitable site within the community.

If no suitable sites found, a community must drop out of the process.

Step three: If one or more acceptable sites is found, community approval must be obtained, such as by a referendum or by public meetings.

If a community gives approval, it becomes a candidate to receive the LULU facility.

If more than one community is a possible host, then the appropriate level of government with jurisdiction for finding a site decides which site is the best overall.

Limitations:

Maclaren (2004: 393): “First, and probably most importantly, there is no guarantee that any community will volunteer to host the facility. If there is no willing host, then the siting process must start again, after considerable time and money have been spent.”

Second, although the dominant principle is that the process will find a socially acceptable site, it may do so at the expense of not protecting the environment.

Third, some residents in the host community will be exposed to or suffer more from the environmental risks than others, due to their close proximity to it.

Those most negatively affected may be out voted by the larger number of people who perceive benefits to the community through promised jobs or enhancement of community amenities.

Fourth, residents of adjacent communities may be concerned that their community will not receive any direct benefits but could be exposed to risks.

Fifth, an ‘ethical issue’.

Maclaren (2004: 393):“Only communities that have the greatest need for the economic benefits of these facilities are likely to consider volunteering. Ultimately, …, the poorest communities may be asked to bear the greatest burden for the consequences of activities that take place elsewhere, such as nuclear power generation and industrial production.”

Canadian Experience with the Voluntary Approach

Hazardous waste facilities have been successfully sited in both Alberta and Manitoba.

Unsuccessful attempt in British Columbia to find a site for a province-wide hazardous waste facility.

Voluntary approach failed because of faults in the public consultation process which led to loss of trust in the overall process by residents of two communities which had offered themselves as possible hosts.

Ontario also has had some unsuccessful outcomes.

4. CONCLUSIONS AND IMPLICATIONS

Decisions to locate LULU or NIMBY facilities usually characterized by conflict and controversy.

Such facilities are needed because of the collective demand generated by societies, yet individuals rarely keen to have them located adjacent to where they live, work or recreate.

Important to:

- identify transparent principles upon which siting decisions will be based, and,
- engage local communities from the outset in the decision process.

Procedures, such as the inverse Dutch Auction, offer opportunities to overcome mistrust about regulatory agencies, facility proponents, and technologies.

Environmental justice emerged due to concerns that LULU and NIMBY facilities too often were located within or adjacent to minority communities.

In the USA, environmental justice institutionalized into federal governance arrangements through a Presidential executive order.

Environmental justice not a ‘magic wand’ or ‘silver bullet” to resolve the conflict and controversy normally associated with LULUs and NIMBYs.

But is a powerful concept to sensitize regulatory agencies and proponents that too often such facilities are sited in or beside communities that are marginalized due to lack of wealth, political influence or power, or minority status.