PERSPECTIVE

Environmental Impact Reporting in Sweden: The Case of the Öresund Link

Erik Skärbäck

In this article, I examine the planning and construction of the Öresund Link—a new bridge that connects Denmark and Sweden—to illustrate weaknesses in Sweden's stakeholder-based Environmental Impact Reporting (EIR) process. Germany's resource-focused planning and building legislation—based on ecological and health/social functions—may provide valuable insights for strengthening Sweden's environmental regulation.

The Öresund Link Process

In 1976, studies of the impacts of fixed links across the Öresund Sound between Denmark and Sweden (Figures 1 and 2) on natural resources, land utilization, and the environment commenced under the auspices of the Öresund Commission of the day.[1] An official government report entitled *Öresundsförbindelser (Öresund Links)* established that "the marked increase in accessibility for this region [southwest Sweden], in combination with the sensitivity of the natural environment in certain areas calls for special measures if a fixed road link is built across the Sound. These measures should concentrate on protecting sensitive areas and increasing the capacity of parts of the region which are appropriate for the reception of large numbers of visitors . . . There is a particularly severe shortage of recreation areas in the immediate vicinity."[2]

So far, implementation of these measures has not commenced, even though the requirements have a sound documentary basis and were reiterated for a full decade. New recreation areas were repeatedly advocated in Swedish ministerial documents issued in 1983, 1985, 1987 and 1989, but were not included in the Öresund link agreement between the Swedish and Danish governments, approved by parliamentary decision on June 12, 1991. According to the agreement, the "Öresund link is to be designed to take into account factors which are ecologically justified, technically feasible and economically reasonable in order to prevent harmful effects on the environment." While there is no indication in the agreement that measures to improve planning and guarantees for nature conservation, recreation, and outdoor pursuits would be technically impossible or economically unreasonable, no attempt was made in the permitting stage to follow up with the Öresund Commissions' policy recommendations.

Figure 1. The Öresund region in Europe (circled).

What happened in the subsequent detailed planning phase? On June 16, 1994, the Swedish government approved the construction of a fixed link, making no explicit provisions in accordance with statements made by the Öresund Commissions in the period 1978–1987. In other words, no new recreation areas were required by the Swedish government to compensate for potential negative effects on the natural environment.

Similarly, the organizations responsible for the land-based feeder links—SVEDAB, the National Road Administration, and the National Rail Administration—were not instructed to protect sensitive recreation resources or compensate for infringing on existing recreation values by contributing to the creation of new facilities. The Fredriksberg-Sunnanå section[3] of the Outer Ring of the Link passes through the most attractive existing and potential recreation areas in the southeastern districts of the Malmö municipality. These include a former missile launching site, the Kvarnby golf course, and the Rosengård belt—one of five green-belt areas established in a 1960s vision, which the municipality embodied in its outline plan. This future green-belt area was also considered to be of regional interest. Notwithstanding the attractions of this area, the outer ring road was planned and constructed without a noise protection wall so that extensive sectors of the surrounding areas will have noise levels considerably greater than 55 dBA. The corresponding access routes on the Danish side of the Sound consistently provide for a noise level of 55 dBA or less on every stretch of the road.

In this case, the Danes were more successful than the Swedes at building access

https://doi.org/10.1017/S1466046600002210 Published online by Cambridge University Press

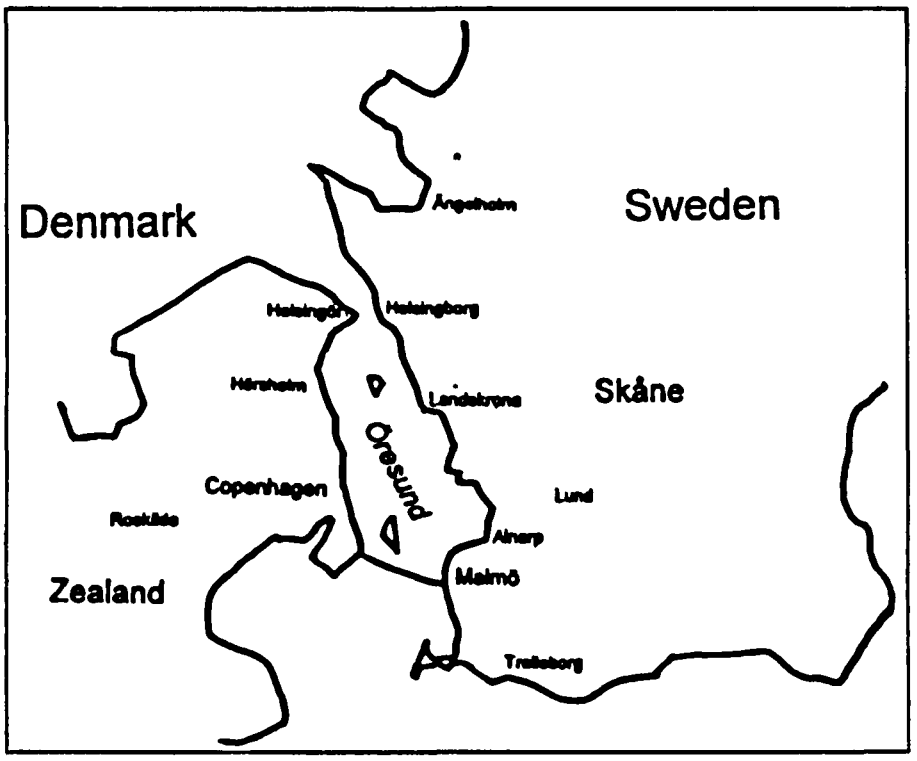

Figure 2. Close-up of the Öresund region.

routes with a high level of environmental ambition. Denmark has a stronger regional planning process than Sweden. It is not clear whether this results in a more effective administrative planning process, which ensures that environmental intentions are implemented, or whether the difference between Denmark and Sweden lies in the strength of the legislation enacted. Sweden has Environmental Impact Reporting (EIR) legislation, but there is some doubt about its effectiveness.

This example clearly demonstrates the failure of administrative systems, planning processes, and control systems to guarantee the subsequent implementation of strategic decisions made at an early stage in the process.

Sweden's Stakeholder-Focused EIR Process

The Swedish National Audit Office has studied the effectiveness of the Swedish EIR system and has noted weaknesses.[4] Many people would agree with this criticism, although there may be a number of reasons for the deficiencies. The quality of impact reports is sometimes weak. A typical Swedish EIR—which is produced by the developer—is based on a compilation of old, existing outline documentation provided by bodies in the environmental protection and historic conservation sectors, for example. There is seldom time for in-depth, comprehensive analysis of the functions and values of the landscape in question. As a result, the impacts of potential construction projects are inadequately elucidated, and any proposals for corrective measures often appear to be made on a random basis.

When an "incomplete" EIR is distributed to representatives of various stakeholder interests, this may well result in irritation and delays. Expressing an opinion about inadequate application documentation is time-consuming. The stakeholders concerned do not have the time to investigate the effects of the project on the various functions of the landscape concerned, and in any case, this is not their responsibility. They can only point out deficiencies in the documentation on which the decision is based. Compliance with the consultation requirement is achieved when the project documentation has been circulated for a time and discussed at various levels, prior to approval by the superior authority (usually the County Government Board). The written justification for approval of the project may contain phrases such as this: "in reaching a final decision, it is noted that the benefits for society are the overriding factor." The developer and his consultants can defer to the views expressed in the consultation process, thus imperceptibly evading their responsibility to assess the environmental impact in detail and explain how it can be rectified.

Points that the stakeholders fail to mention in their written expressions of opinion are not considered worth taking into account. Environmental interests with no lawyers to represent them ultimately wind up with a poor hand of cards. These unrepresented stakeholders include children, future generations, and long-term societal interests.

The planning processes described above may be characterized as stakeholder-focused, in contrast with a more resource-focused approach. The latter might be achieved via legislation requiring compensatory measures to regulate the loss of environmental values.[5]

While consultation is an essential prerequisite for the democratic process, it is not enough. Is the process particularly democratic if the expert opinions on which decisions are based are defective? Democracy calls for knowledge. "The language of power is silence" is a classic saying; failure to present exhaustive studies is one expression of this.

Unclear Legislation

What makes the EIR structure such a shaky procedure? Is it a lack of funds for analysis, a shortage of qualified experts, an inefficient planning process, inadequate civic courage on the part of the participants, or deliberate abuse of power?

I would maintain that the decisive factor is lack of clarity in the legislation. Swedish legislation does not provide sufficient guidance regarding the *obligation to rectify* a negative impact. The relevant statutes merely state that the environmental effects should not be "unacceptable." This means that every project is permitted to cause some "harm," and therefore the law sanctions the gradual deterioration of the environment, which is the overall result of several projects.

Since the legal criteria for environmentally appropriate action in the planning and building process are unclear, the requirements are weak. The EIRs that are carried

https://doi.org/10.1017/S1466046600002210 Published online by Cambridge University Press

out tend to be increasingly thin, as developers discover the weakness of the legislation. The lack of clarity regarding requirements means that there is an invisible obstacle, which all parties concerned must surmount. The developers make an initial tentative jump/proposal, and then make a rough grab to assess the height of the bar. At the same time, they can demonstrate to the authorities that they are not prepared to accept standards that are too high.

Lack of clarity in the legislation is hardly doing the companies concerned a favor. They want to know what the rules are and then fulfill their responsibilities.[6] Lack of clarity leads to uncertainty, and this results in a messy planning process, accompanied by delays and excess costs. The EIR is left hanging in the air, alive and kicking, but essentially no more than a nuisance.

It is not reasonable to expect developers to voluntarily adopt higher environmental standards than the law requires, unless doing so allows them to collect additional brownie points to enhance their environmental image. In point of fact, developers may be *prohibited* from doing more than the law requires since, under the Swedish Companies Act, they are not allowed to squander the company's assets. If the environmental measures adopted are more generous than required by law, there may be grounds for sanctions against the President of the company, or refusal to grant the Board discharge from liability. Perhaps this situation seldom occurs, but the facts will never be known outside the boardroom, particularly if it is located in another country.

We are unlikely to be able to achieve balancing measures in the construction process on a purely voluntary basis unless we have clear legislation. As a result, amendment of the law is required, clearly stating that a negative impact must be rectified. Clarification of *how* this is to be achieved by measures to compensate for the loss of environmental values is also desirable.[7]

Nature—A "Free Utility"

From a legal standpoint, the values implicit in the natural environment are "free utilities," since they do not belong to any particular person. Nature and the landscape are regarded as "ownerless objects," and hence infringements cannot be treated as theft. The dialogue between various interests in society determines how much each party may take. As a result, modern hunters can divide the spoils in accordance with democratic principles—the majority decides. If the majority is satisfied, the impact of the project is "acceptable."

Maybe a comparison of the laws governing "free" nature to those in the criminal code for the protection of private property is farfetched, but consider this: The criminal code does not allow you to take 10 dollars from your neighbor, and even one dollar is not considered to be "acceptable." Similarly, we are not allowed to make a dent in someone else's car without compensating the owner, even if the damage is "acceptably" small.

But the Swedish public authorities can give a developer the right to destroy certain ecological functions or detract from certain health functions without requiring any action to rectify the negative impact. The criterion is that the destruction or deterioration must not be "unacceptable" in the specific case in question. In addition, when a permit is granted, it is often stipulated that environmental considerations are to apply within the bounds of what is technically feasible and economically reasonable. If society's demands are related to the applicant's financial capability, a developer who has limited technical and economic resources has a greater entitlement to destroy the environment, under Swedish environmental legislation. If we were to apply this principle to criminal legislation, a poor man would have a superior entitlement to steal a dollar from his neighbor than a richer man. But this is not the case. And a driver with limited economic resources has no more right than a millionaire to dent another car without paying for the damage.

The "free utility" concept is open to discussion. In point of fact, society has established environmental targets, threshold values, and other quality criteria, which limit the use of free utilities—primarily in the case of air and water resources. These limits are formulated in general terms, however, allowing a margin for deterioration from the current position. In the United States, environmental pollution rights have even become a commodity that can be traded. In any case, pollution of water and air resources is subject to a continuous dilution process, and there is some self-cleaning action.

The situation is considerably more serious in the case of land, species, ecological flows,[8] and historic landscape resources. Monitoring is weaker, and these resources recuperate much more slowly than air and water. Some ecosystems may have a recovery period of hundreds of years, and the process takes even longer in the case of topsoil. A specific landscape environment, with its historic traces and patterns, is definitely a finite and irreplaceable resource. Treating these resources as "free utilities" raises a number of questions. Obviously, any use of these resources that does not harm their ecological and health (recreational) functions in the long term should remain free. Environmental targets and indicators which check that everyone receives an "acceptable" proportion of this production from an "allocation policy" standpoint may be formulated to monitor this factor. In this context, "everyone" must include future generations and stakeholders who have no legal representation.

In the case of control over the *irreversible* utilization of resources, however, environmental targets or threshold values are not a satisfactory strategy. The retention of these resources' ecological and health functions is a prerequisite for a sustainable society. The strategy in this case must be to conserve and restore resources.

The German Model

How can losses of natural and landscape values be determined? Germany provides some clues, since German planning and building legislation has required compensatory measures since 1976. The Germans do not bury their heads in the sand on this issue—it is taken for granted that all construction projects involve some impact on ecological and health functions. Unlike other nations, such as the Sweden and the United States, Germany does not waste time by first considering whether there is a

https://doi.org/10.1017/S1466046600002210 Published online by Cambridge University Press

negative impact before examining the question of whether or not this impact is acceptable.[9] The German legislation unequivocally states, as the first priority, that negative effects on the natural environment and the landscape must be (1) avoided, (2) minimized, (3) balanced (in their functional context), or, as a final alternative, (4) compensated (in some other functional context). This involves a *single* review process and a shorter and more direct planning process.

The first two options (avoid and minimize) are hardly novel—in principle they also apply in Sweden. On the other hand, Swedish legislation makes no reference to the need to *rectify* a negative environmental impact—that is, to compensate for the impact in full by taking appropriate steps. Also, Swedish legislation says nothing about *how* such measures to rectify the values at stake should be implemented "in the functional context concerned." As a result, developers are tempted to focus instead on spectacular design features which help to sell the project, while ignoring ecological consequences which are less easily identified. Hence, projects are sometimes approved without requiring that existing ecological and health functions[10] are maintained.

What are these ecological and health/social functions which call for protective measures? In accordance with the German methodology, five categories of resources which convey values/functions should be analyzed: land, water, ecosystem, the landscape scene/historic environment, and air/climate/noise. Biological production capacity, the prerequisites for the survival of various species, and nutrient cycles are examples of values for safeguarding ecological functions. Examples of values for health (recreation) functions include nature appreciation,[11] documentation of the historic landscape, and information about human history. Health functions also include local climates, air quality, and noise levels.

Taking the landscape's resource categories and their ecological and health functions as starting points in an EIR may result in a greater focus on long-term interests than the stakeholder-focused process which predominated in Sweden in the 1980s and 1990s.

Notes

1. Statens Naturvårdsverk (Swedish Environmental Protection Agency), 1978, *Öresundsförbindelser LANDSKAPSANALYS, Delutredning utförd för den svenska öresundsdelegationens expertgrupp för plan-och miljöfrågor,* Meddelande 3/78, Stockholm, 192 pp.

2. Swedish Government, Ministry of Communications, 1978, *Öresundsförbindelser,* SOU 1978:8, Stockholm, 400 pp.

3. Vägverket Södra Regionen (National Road Administration Southern Region), 1996, *Operations schedule, E6 route, Fredriksberg-Sunnanå, Item 1002,* May 24, Malmö, 200 pp.

4. Riksrevisionsverket, RRV (Swedish National Audit Office), 1996, *Miljökonsekvensbeskrivningar, MKB i praktiken,* Stockholm, 150 pp.

5. Swedish Central Government Offices, Ministry of the Environment, 1997, *Kompensation för förlust av miljövärden (Compensation for the loss of environmental values),* Ds 1997:52, Stockholm, 146 pp.

6. P. Lerman, 2000, "Miljöbalken utmanar den fysiska planeringen!" in *Planering för landskap,* E. Skärbäck et al., STAD & LAND, nr 166, Movium, SLU, Lund, 103–118.

7. E. Grip, A-L. Mårtensson, E. Skärbäck, and K. Åström, 1999, *"Den som tar ska ge igen" Balansering—ett rättvist system för miljöhänsyn i samhällsbyggandet? ("Paying back" Balancing—a fair system for taking the environment into account in the construction process?),* Sociology of Law, Research Report 1999:2, Lund University, 116 pp.

8. R. T. T. Forman, 2000, "The Spatial Solution with Additional Perspectives for Landscape Planning," in *Planering för landskap,* E. Skärbäck et al., STAD & LAND, nr 166, Movium, SLU, Lund, 65–81.

9. W. Dieckhoff, 2001, *Ökologische Ausgleichsund Ersatz massnahmen bei Eingriffen in den Landschaftshaushalt, Ein Vergleich schwedischer und deutscher Planungspraxis an Beispielen.* Rheinische Friedrich-Wilhelms-Universität, Geographisches Institut, Bonn, 120 pp.

10. P. Grahn, 1994, "Green structures—The importance for health of nature areas and parks," *European Regional Planning* (56):89–112.

11. P. Grahn, 1996, "Wild nature makes children healthy," *Journal of Swedish Building Research* (4):16–18.

This article was provided to Environmental Practice *via James A. Roberts.*

Address correspondence to Dr. Erik Skärbäck, Landscape Architect, Professor in Regional Planning, Department of Landscape Planning, 230 53 Alnarp, SLU, Sweden; (e-mail) Erik.Skarback@lpal.slu.se; (web) www.lpal.slu.se/personal/eriks.

https://doi.org/10.1017/S1466046600002210 Published online by Cambridge University Press