

“Survival of the Fittest?” – Adaptive strategies in Impact Assessment in a “Darwinistic perspective”

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Introduction

Realizing major infrastructure initiatives of national importance is a challenge in many countries and certainly in The Netherlands. Besides technical and financial constraints infrastructure projects often face complex decision-making and participation processes resulting in long trajectories between drawing table and opening ceremony. It affects large road and rail proposals, mainport development as well as major energy projects such as wind parks.

To tackle this issue governmental agencies have engaged in a quest to pinpoint causes for delay and to find solutions and implement policies and measures to speed up the process and streamline procedures (Elverding Committee, 2008; Arts, 2010; Raad voor Verkeer en Waterstaat, 2011). Main causes for delay relate to issues rooted in the preparation of projects and the political culture (risk avoidance, lack of political consistency, limited public acceptance), issues typical for the decision-making process (insufficient budgets, unrealistic time planning, lack of integrative exploration of problems) and juridical issues (fragmented and complex procedures). In addition, growing legal complexity, availability of new (real-time) data collection systems and increased technical research capabilities result in big detailed data sets, which instead of reducing uncertainty as assumed, in practice often increase confusion in impact assessment processes. As a consequence, impact assessment tools – such as SEA and EIA – are often perceived or framed as contributing to (legal) risks rather than as mechanisms controlling environmental risks (Arts & Niekerk, 2010; Arts *et al.*, 2012).

After the advice of the Elverding Committee, Dutch government started enthusiastically with a program “Faster & Better” (Ministry I&M, 2012) in order to improve efficiency and effectiveness of infrastructure planning, impact assessment and decision-making. After initial gains in *streamlining* legislation and procedures in the Netherlands, however, by 2011 still 23% of the main transportation infrastructure projects (>10 million Euro) were delayed in the design phase and 14% in the construction phase. At least half of the delays were related to stakeholder issues and public resistance, with extended execution times, intensive public voicings and legal appeals as witnesses (Infrastructuurmonitor MIRT 2012).

Till now properly and timely addressing and selecting robust strategic options and plan alternatives with involvement and endorsement of stakeholders remains a huge challenge (personal communication M. Scheffers). An example of this is provided in the current wave of sustainable energy projects, for which balancing societal acceptance and national policy interests seems particularly difficult. Dutch SEA and EIA practice is just one example of a wider international quest for streamlining impact assessment, planning and decision-making – see e.g., Bond *et al.* (2014). This stipulates the search for adapting IA to ever more dynamic environments in order to prevent SEA and EIA becoming redundant.

This paper explores the policy developments and potential in adaptive strategies for timely and successful outcomes of transportation and energy infrastructure planning, especially related to the role

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of IA in the face of decision making. Which approaches proved useful, what constraints were encountered and what results achieved in the Dutch societal context, to enhance public acceptance and reduce delays.

Root causes for delay

Steering national initiatives from the explorative and planning phase into operation is by no means an easy task, especially in a densely-populated country and open, democratic society as The Netherlands. In the political and governance arena interests, frame and scope may shift quickly, leading for instance to swiftly changing priorities, sudden budget constraints and more in general process uncertainty.

Limited funds in most cases negatively influences decent embedding and environmental mitigation measures first and thus impact reduction for local populations. Exemplary for this, was the Dutch government policy in 2010 to adopt only the minimum legal obligations as set by the EU framework to reduce impacts to the surrounding environment of national infrastructure initiatives. This also reflects the wider shift to a strictly legalistic approach, which tends to neglect inclusive and broader consideration of societal issues in the wider environment of projects. In addition to this, it is often argued that planning and IA need to be more efficient, '*streamlined*'. Narrowing down adaptiveness and flexibility reduces the room to maneuver for public support and better embedding.

The result is that a project manager has less 'small change' available to deal with local residents who often bear the impact burden without offsets (De Vries *et al.*, 2013). This proves to be a recipe for people's obstruction when the balance of power between government and citizenship changes, boosting populist and base democracy movements (Hajer, 2011). Moreover, public groups have professionalized to use every legal opportunity and technicality to challenge governmental initiatives in the courts. Democratic system evolution with its limitless internet data availability seems to grant ever more legal opportunities for citizens and lower tiers of government to oppose and obstruct national infrastructure projects.

Big data and more research may also increase complexity and confuse the decision-making arena if not properly delineated and made transparent. The ongoing fine tuning and nitty gritty of law making and regulation generally follows the technical potential for detailing and so further triggers the 'judicialization' processes (Elverding Committee 2008; Arts, 2010).

With respect to governmental organization and process, internal system weaknesses, gaps between scientific uncertainty and its juridical interpretation or ambiguity about distribution of responsibilities and ownership, may also negatively affect modes of working and quality of decision preparation and justification.

In this dynamic context IAs seem to lag behind in societal evolution . Ex ante impact assessment has its origins in the rational planning approaches of the 1960s in order to reduce uncertainty and preventing unexpected consequences in planning and decision-making (Arts & Niekerk, 2010). The rationale behind these assessments was getting a grip on uncertainties intrinsic to a prospective activity as planning, which relates to the principle of 'think before you act'.

These days, however, impact predictions and assessments for infrastructure projects have become themselves a source of substantial societal risk. In environmental impact studies much detailed information is usually gathered in order to check whether the various alternatives fit within the strict (environmental) regulations. The calculations for predicting traffic, air, noise or nature impacts prove to be complex and they suffer from failures. As a consequence, interest groups, that oppose a project, can easily find factual statements in the great amount of detailed information that may contain errors which

offer opponents a good chance to win a court case against a project. In order to hedge such judicial issues, in a new round of ‘wrestling’, project teams prepare even more extensive and detailed IAs to substantiate the project plans. This, however, only seems to intensify public resistance. The discussions about the quality of the assessments result in delays, obstruction or cancellation of projects.

The question is whether the ‘rationale-rooted species’ of IA is adaptive enough to be still fit for the challenges of current planning and decision-making or that streamlining efforts are diminishing the ‘habitat’ for IA making it an endangered species not fitted for survival.

Quest for dealing with dynamic societal environments

Responding to the analysis of the Elverding Committee important steps have been made in Dutch infrastructure planning since 2008 to improve, streamline and speed up planning and implementation of infrastructure initiatives of national importance (Arts, 2010; Ministry I&M, 2012).

In the political arena awareness has been raised about keeping a straight marching route according commitments in national strategic interests, respecting the follow-up agreements and covenants internally and between different tiers of government. Indecisive and reversible positions allow for weak foundations in any infrastructure initiative, making it vulnerable for ongoing need and necessity discussions, alternative propositions and challenges in public debate or in court. As discussed before Arts and Niekerk (2010) argue that as a consequence, SEA and EIA become a source of risk themselves instead of a tool for controlling risk.

Only awareness to act as an ambassador for a given national project will not do the job. Therefore, guidelines have been issued by the responsible cabinet minister for his colleagues, the provincial and municipal executive, with a concrete working protocol to promote major initiatives in a coordinated fashion. In the process an intergovernmental programme Sneller en Beter (‘Faster and Better’, Ministry I&M, 2012) was initialized as a follow-up to anchor and disseminate these rules of the game for decision-making on major national infrastructure projects.

In order to deal better with the challenges, the planning and decision-making process for the development of national infrastructure now includes a comprehensive explorative study stage to consider and assess ‘reasonable alternative’ options – this stage links up with the EU requirements for carrying out SEA (Arts, 2010). This step is concluded with a preferred solution choice supported by a preliminary decision of government on the motivated, preferential design with a maximum budget allocated.

On the technical side the civil service and expert departments have been challenged to streamline and bring focus in the underlying data requirements and research agenda (so-called ‘useful impact assessment’, see Arts, 2010). From experience guidance was issued to provide only relevant data on impacts required by sectoral laws (e.g. Noise, Air quality or Nature conservation). Tailored information should be discriminatory in selecting valid alternatives and demonstrate fulfilment of applicable (legal) standards and norms to withstand court challenges.

The legal framework has been modified as well over the last years to facilitate better and faster decision-making in national projects. To speed up enlargement projects of existing national roads a ‘fast-track procedure’ was first introduced with reduced impact assessment requirements. In the face of the economic crisis and recovery an additional ‘light’ procedure was thereafter adopted to further fast-track initiatives and private investment in infrastructure, energy and spatial developments. Other ‘special vehicle’ regulations were added to ‘streamline’ decision-making and to allow the go-ahead of experimental, integrated projects in the urban contexts. For example the Interim Act on City and

Environment enables the deviation of certain strict environmental standards in exchange for compensating other environmental needs.

Many of these temporary bits of regulation have been formalized in permanent legislation in recent years, e.g. the Crisis and Recovery Act. Procedural steps were simplified and ‘red tape’ reduced, albeit mostly in the domain of environmental review and participation safeguards, for example in the modernization of EIA regulations. A complete and far-reaching makeover of the Dutch spatial and environmental planning system is under way and scheduled for implementation in 2018 (Omgevingswet, ‘Environment and Planning Act’⁴) – a clear example of ongoing streamlining. Similar developments regarding IA, planning and decision-making – often euphemistically called ‘streamlining’ – can be seen also in many other countries as is discussed for instance by Bond *et al.* (2014).

Adaptive impact assessment and changing governance

The Dutch EIA system comprises two types or stages of impact assessment namely the SEA (or so called ‘Plan-EIA’) and the EIA (‘Project-EIA’). The first relates to the strategic level of planning, targeting decisions with broad spatial implications or those setting the framework for underlying concrete decisions on projects. The latter targets concrete project decisions and licensing, which often can be dealt with in a shortened procedure with reduced information and participation requirements. Without elaborating on the intricacies of the detailed legislation, it can be concluded that both types may be executed either in a consecutive, tiered and separate approach or in a combined approach, the latter only when the single goal of the plan is to provide a basis for the project decision of the same initiative (Arts *et al.* 2011).

Broad initiatives comprising combined infrastructure and spatial developments need to go through a sequential process. First, an explorative plan-EIA process is prepared for the principal decision and subsequently a project-EIA for consenting the concrete, preferential infrastructure design. In cases where the only objective of the plan is to facilitate the same initiative that needs to go through project-EIA as well, a combined process is often stipulated. The notion is that a single EIA servicing both the feasibility phase and the concrete project implementation may sufficiently deliver the dedicated environmental information needed to stave the staged decision making process.

Reducing risks of administrative, societal or juridical ‘show stoppers’ via the impact assessment route may be supported by organizing effective participation from the start with strategic choices prepared transparent and justified before narrowing them down to a single concrete, preferred alternative for project implementation.

Practical experience suggests (Ministerie I&M, 2013) that broad consideration, public engagement and transparency are success factors in narrowing down the strategic options to enable a robust administrative decision on a preferred alternative. However, sometimes preparatory decisions are developed behind closed doors and hence face greater societal resistance and ongoing need and necessity or scope discussions in project EIA elaboration or implementation.

One of the novelties envisaged in the ‘Environment and Planning Act’ proposal is the introduction of a discretionary judgment process whereby appropriate planning situations can be screened for the need to proceed to a Plan-EIA (SEA) procedure. Such discretionary screening procedure already exists to test the necessity for project EIA. Adaptive impact assessment is tested furthermore in pilot projects within the framework of the governance streamlining program ‘Eenvoudig Beter’ (‘Simply Better’) (Ministry I&M, 2016).

⁴ <https://www.government.nl/topics/spatial-planning-and-infrastructure/contents/revision-of-environment-planning-laws>

A dedicated and tailored public engagement and participation process is an important factor for success in decision making on major national investment projects. Participation guidelines and codes of conduct have been drafted to optimize and streamline stakeholder management taking care of coordination in the administrative decision preparation and the outside world (Centrum Publieksparticipatie, 2009).

Recent experience in smaller onshore wind energy projects shows the importance of participation guidelines as an incentive to explore new partnerships, shared ownership or other insights in promoting public support and participation on the local level. Proper and broad implementation of these guidelines is regularly tested in court as one of the requirements for sound project licensing.

Conclusions

Discussion of recent developments in the field of IA and environmental and spatial planning in the Netherlands show ongoing efforts to further improve efficiency and streamlining resulting in the proposed comprehensive integrated 'Environment and Planning Act' (Omgevingswet). Under these efforts, IA seems to be streamlined with planning and decision-making. However, the question is whether IA keeps its specific function and added value, e.g. as a tool to design the best solution. Will fully integrated IA be reduced to just a procedural 'ticking the box' and thereby lose its specific niche of adding high quality factual information (content)?

In practical cases it is shown that procedural requirements seem to be not the main obstacles for IA to facilitate careful and relevant decision-making. Properly choosing and tailoring the adaptive approach considering a plan-, project- or combination type of IA with its societal and stakeholder context seems to be essential. Timely participation and adequate, meaningful interaction with other parties for public involvement and understanding in the options selection process and justification of the preferred way forward are key factors to prevent delays.

Adaptation in IA is a key factor to enhance survival of the fittest assessment tool. 'Evolutionary success' of IA increases when adaptivity and flexibility is implemented on all levels and stages in terms of process, institutional arrangements and content requirements. At the moment even legal arrangements for pilot projects are organized to validate actual developments and possibilities in adaptive approach. The message is that moving along wisely with the project environment may prevent hard controversy and unsolvable conflicts with the community jeopardizing the initiative. Such conflicts may not only cause delay but possibly result in a complete stand still. True interaction with external parties on process, content and institutional issues may contribute to more variety in approach which may result in adaptive capacity and a living IA practice.

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