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Sustainability and Public Investments

Lessons from Major Public Investment
Projects

Concept report No. 29

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Sustainability and Public Investments. Lessons from Major Public Investment Projects

English summary

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Summary

The main objective of this study has been to contribute to improve the decision-making process of major public investments in order that their sustainability is assured. More precisely, its ambition has been to:

1. Discuss how the concept of sustainability is to be understood when assessing major public investments in early phase.
2. Examine the degree to which the Norwegian quality assurance scheme (KS1) attend to the sustainability of major public investment projects and point to possible reasons that it is not assessed in a proper manner.
3. Examine the need for guidance to the carrying out of concept evaluations concerning sustainability.

The term *sustainability* derives from Latin (*sustenare*) and is composed of the elements *sus* (holding up) and *tenere* (over a long period). In our context the term thus denotes the ability to uphold something over time. More precisely, we understand it as a positive concept, in that it signifies the ability to uphold something that is *positive and good for society over time*.

The point of departure of this study has been the definition of sustainability provided by the Norwegian Ministry of Finance. According to this definition, the sustainability of an investment is:

“[t]he degree to which the investment contributes to the realisation of goals [effects] and purposes [wider societal ambitions] after the project is realised and through the expected life cycle. A consideration of net benefit flows over time.”

The assessment of sustainability is thus based on an examination of the capability of the project to achieve important goals over time as part of a positive societal process. In addition, it is essential not to limit the assessment only to the intended effects. All impacts that are retraceable to the project needs evaluation – be they positive or negative, direct or indirect, concerning different dimensions (economy, environment, social concerns), and affecting different groups of people in both time and space. In addition, an assessment of flexibility and robustness concerning risk are natural elements of a sustainability assessment *ex ante*.

There does not seem to exist one single analytic tool enabling to grasp all these aspects of the sustainability of an investment. This study refers swiftly the tools available for assessing sustainability that the authors consider the most noteworthy. Their conclusion is that several complementary tools are necessary in order to assess sustainability properly, and that the assessment needs to combine quantitative and qualitative approaches. The way in which the different tools and methodologies are practiced influences largely on whether or not the sustainability of the investment can be assessed. Of special importance in the assessment of sustainability is that the impacts of the project are examined in a *time horizon that is sufficiently extensive*, that the *perspective is sufficiently broad*, and that *significant risk factors* are identified and their influence on the net utility of the investment.

Some official demands and guiding principles exist that can be used in the assessment of sustainability. These can mainly be found at two levels. The first level concerns the general political ambition of moving society in the direction of “a sustainable development”. The second level concerns the mandatory demands and guidelines concerning the assessment of public projects. The quality assurance scheme of the Ministry of Finance is an important part of the general political framework, and specifies that an economic assessment (cost/benefit analysis) should be carried out.

Economic assessments, such as cost/benefit-analysis alone cannot, however, provide sufficient analysis of sustainability, and needs filling out. No formal guidelines exist that indicate how such supplementary analysis is to be carried out.

The study examines further the manner in which sustainability has been taken into concept evaluations through the period 2006-2011 as part of the KS1 scheme. The authors conclude that there exist a potential of improvement concerning the sustainability assessment of the projects examined. The appraisal of what need the project is intended to satisfy comes out as too short sighted and static in several of the analysis. Uncertainties concerning the stability of the societal need is often not identified or discussed. In cases where conflicting interests appear, as for instance in the transport sector (the wish for reduced traffic as opposed to the perceived need for shorter travel time), there exist a significant uncertainty among the analytics of what is to be regarded the purpose of the project (Only one? And if so, which?). It seems that the handling of impacts that are not easily quantifiable needs a more systematic assessment. Both the analysis of non-estimated impacts and especially that of the distributional impacts of the investment tend to be inadequate. Equally, the choice of temporal horizon in the alternative analysis often lacks discussion and justification. Finally, the realism of maintaining sufficient financing during the operational phase and for necessary maintenance is hardly subject to questioning.

This impression from the exam of the KS1 reports is to a large degree supported by interviews carried out and by supplementing studies.

The study concludes with a list of recommendations on the subject of improving the assessment of sustainability in concept evaluations, with today's practice as point of departure. The ten recommendations are (in an abbreviated form):

1. Include all relevant risk factors (including stability in overall needs) and assess the need to include more flexibility.
2. Base the assessment on a temporal horizon sufficiently long that also long term and indirect impacts of the project can be included. Use different scenarios is necessary.
3. Make explicit the appraisal of how long term and short term impacts are to be compared.
4. Consider especially the probability for maintaining the financing throughout the entire life span presupposed in the concept.
5. Do not moderate impacts that are difficult to price properly. The temporal horizon of non-monetary impacts also needs highlighting, and the analysis must describe whether or not they will be strengthened or weakened over time.
6. Indicate which impacts or factors of risk that eventually is not assessed in an explicit manner.
7. Point to possible imbalances in the data material that might lead to misleading model calculations and analysis results.
8. Show how costs and benefits are distributed with regard to different groups that are either directly or indirectly affected (distributional effects).
9. Examine the need for more precise instructions to analysing sustainability, and the need for an accompanying guidance material.
10. Examine the need to formulate common, general goal or a set of criterion for the assessment of sustainability.

Concerning the last two of these recommendations, the study concludes that a need exist for clearer guidance to the analytics on how to assess sustainability. These guiding principles need to be formulated at a superior level, i.e. the Ministry of Finance or a sectorial ministry.

As the authors observe, there seems to be a widely held view that sustainability cannot be regarded as an "objective" criterion onto which base an evaluation. Since the question of sustainability depends on ponderations of different aspects of both time and space, it will by definition involve morally charged

elements. After the examination of the KS1 reports, it seems possible to establish a better and more common practice for the assessment of sustainability.

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Rapport	Tittel	Forfatter
Nr. 1	Styring av prosjektporteføljer i staten. Usikkerhetsavsetning på porteføljenivå <i>Project Portfolio Management. Estimating Provisions for Uncertainty at Portfolio Level.</i>	Stein Berntsen og Thorleif Sunde
Nr. 2	Statlig styring av prosjektleidelse. Empiri og økonomiske prinsipper. <i>Economic Incentives in Public Project Management</i>	Dag Morten Dalen, Ola Lædre og Christian Riis
Nr. 3	Beslutningsunderlag og beslutninger i store statlige investeringsprosjekt <i>Decisions and the Basis for Decisions in Major Public Investment Projects</i>	Stein V. Larsen, Eilif Holte og Sverre Haanæs
Nr. 4	Konseptutvikling og evaluering i store statlige investeringsprosjekt <i>Concept Development and Evaluation in Major Public Investment Projects</i>	Hege Gry Solheim, Erik Dammen, Håvard O. Skaldebø, Eystein Myking, Elisabeth K. Svendsen og Paul Torgersen
Nr. 5	Bedre behovsanalyser. Erfaringer og anbefalinger om behovsanalyser i store offentlige investeringsprosjekt <i>Needs Analysis in Major Public Investment Projects. Lessons and Recommendations</i>	Petter Næss
Nr. 6	Målformulering i store statlige investeringsprosjekt <i>Alignment of Objectives in Major Public Investment Projects</i>	Ole Jonny Klakegg
Nr. 7	Hvordan tror vi at det blir? Effektvurderinger av store offentlige prosjekt <i>Up-front Conjecture of Anticipated Effects of Major Public Investment Projects</i>	Nils Olsson
Nr. 8	Realopsjoner og fleksibilitet i store offentlige investeringsprosjekt <i>Real Options and Flexibility in Major Public Investment Projects</i>	Kjell Arne Brekke
Nr. 9	Bedre utforming av store offentlige investeringsprosjekter. Vurdering av behov, mål og effekt i tidligfasen <i>Improved Design of Public Investment Projects. Up-front Appraisal of Needs, Objectives and Effects</i>	Petter Næss med bidrag fra Kjell Arne Brekke, Nils Olsson og Ole Jonny Klakegg
Nr. 10	Usikkerhetsanalyse – Kontekst og grunnlag <i>Uncertainty Analysis – Context and Foundations</i>	Kjell Austeng, Olav Torp, Jon Terje Midtbø, Ingemund Jordanger, og Ole Morten Magnussen
Nr. 11	Usikkerhetsanalyse – Modellering, estimering og beregning <i>Uncertainty Analysis – Modeling, Estimation and Calculation</i>	Frode Drevland, Kjell Austeng og Olav Torp
Nr. 12	Metoder for usikkerhetsanalyse <i>Uncertainty Analysis – Methodology</i>	Kjell Austeng, Jon Terje Midtbø, Vidar Helland, Olav Torp og Ingemund Jordanger
Nr. 13	Usikkerhetsanalyse – Feilkilder i metode og beregning <i>Uncertainty Analysis – Methodological Errors in Data and Analysis</i>	Kjell Austeng, Vibeke Binz og Frode Drevland
Nr. 14	Positiv usikkerhet og økt verdiskaping <i>Positive Uncertainty and Increasing Return on Investments</i>	Ingemund Jordanger
Nr. 15	Kostnadsusikkerhet i store statlige investeringsprosjekter; Empiriske studier basert på KS2 <i>Cost Uncertainty in Large Public Investment Projects.</i>	Olav Torp (red.), Ole Morten Magnussen, Nils Olsson og Ole Jonny Klakegg

Rapport	Tittel	Forfatter
	<i>Empirical Studies</i>	
Nr. 16	Kontrahering i prosjektets tidligfase. Forsvarets anskaffelser. <i>Procurement in a Project's Early Phases. Defense Aquisitions</i>	Erik N. Warberg
Nr. 17	Beslutninger på svakt informasjonsgrunnlag. Tilnærminger og utfordringer i prosjekters tidlige fase <i>Decisions Based on Scant Information. Challenges and Tools During the Front-end Phases of Projects</i>	Kjell Sunnevåg (red.)
Nr. 18	Flermålsanalyser i store statlige investeringsprosjekt Multi-Criteria Decision Analysis In Major Public Investment Projects	Ingemund Jordanger, Stein Malerud, Harald Minken, Arvid Strand
Nr. 19	Effektvurdering av store statlige investeringsprosjekter <i>Impact Assessment of Major Public Investment Projects</i>	Bjørn Andersen, Svein Bråthen, Tom Fagerhaug, Ola Nafstad, Petter Næss og Nils Olsson
Nr. 20	Investorers vurdering av prosjekters godhet <i>Investors' Appraisal of Project Feasibility</i>	Nils Olsson, Stein Frydenberg, Erik W. Jakobsen, Svein Arne Jessen, Roger Sørheim og Lillian Waagø
Nr. 21	Logisk minimalisme, rasjonalitet - og de avgjørende valg <i>Major Projects: Logical Minimalism, Rationality and Grand Choices</i>	Knut Samset, Arvid Strand og Vincent F. Hendricks
Nr. 22	Miljøøkonomi og samfunnsøkonomisk lønnsomhet <i>Environmental Economics and Economic Viability</i>	Kåre P. Hagen
Nr. 23	The Norwegian Front-End Governance Regime of Major Public Projects – A Theoretically Based Analysis and Evaluation	Tom Christensen
Nr. 24	Markedsorienterte styringsmetoder i miljøpolitikken <i>Market oriented approaches to environmental policy</i>	Kåre P. Hagen
Nr. 25	Regime for planlegging og beslutning i sykehusprosjekter <i>Planning and Decision Making in Hospital Projects. Lessons with the Norwegian Governance Scheme.</i>	Asmund Myrbostad, Tarald Rohde, Pål Martinussen og Marte Lauvsnes
Nr. 26	Politisk styring, lokal rasjonalitet og komplekse koalisjoner. Tidligfaseprosessen i store offentlige investeringsprosjekter <i>Political Control, Local Rationality and Complex Coalitions. Focus on the front-end of large public investment projects</i>	Erik Whist, Tom Christensen
Nr. 27	Verdsetting av fremtiden. Tidshorisont og diskonteringsrenter <i>Valuing the future. Time horizon and discount rates</i>	Kåre P. Hagen
Nr. 28	Fjorden, byen og operaen. En evaluering av Bjørvikautbyggingen i et beslutningsteoretisk perspektiv <i>The Fjord, the City and the Opera. An Evaluation of Bjørvika Urban Development</i>	Erik Whist, Tom Christensen
Nr. 29	Levedyktighet og investeringstiltak. Erfaringer fra kvalitetssikring av statlige investeringsprosjekter <i>Sustainability and Public Investments. Lessons from Major Public Investment Projects</i>	Ola Lædre, Gro Holst Volden, Tore Haavaldsen

Forskningsprogrammet Concept skal utvikle kunnskap som sikrer bedre ressursutnyttning og effekt av store, statlige investeringer. Programmet driver følgeforskning knyttet til de største statlige investeringsprosjektene over en rekke år. En skal trekke erfaringer fra disse som kan bedre utformingen og kvalitetssikringen av nye investeringsprosjekter før de settes i gang.

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The Concept research program aims to develop know-how to help make more efficient use of resources and improve the effect of major public investments. The Program is designed to follow up on the largest public projects over a period of several years, and help improve design and quality assurance of future public projects before they are formally approved.

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