

Environmental and regional governance – squeezed or sustainable?
Change and variation among the professionals at central and regional level the
last decade in Scandinavia

Environmental and Regional Governance – Squeezed or Sustainable?

Change and variation among the professionals at
central and regional level the last decade in
Scandinavia

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Stockholm, Sweden
2008

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Preface

The research programme, 'Internationalisation of regional development policies – Needs and demands in the Nordic countries' was commissioned by the Nordic Council of Ministers in the spring of 2005.

The aim of this programme is to undertake research on key issues, where it has been identified that new knowledge is needed, and where such knowledge could be seen to benefit the development and implementation of regional development policy in the Nordic countries.

The basis for the research programme is its Nordic character. Research should lead to new knowledge both for the academic world and for the world of policy and practice. Projects should add 'Nordic value', i.e. they should produce knowledge of relevance for several regions and countries across Norden. The research should moreover be comparative and collaborative across at least three Nordic countries or self-governed areas.

Three themes of high priority for the research programme have been identified; '*regional governance*', '*innovation and regional growth*', and '*demography and labour migration*'.

In addition to these priorities two additional crosscutting themes were also defined; '*the enlargement of the EU and the challenges for Nordic regional development policies*' and the broad topic of '*the three dimensions of sustainable regional development*'; i.e. social, economic and environmental sustainability.

The research programme has been launched in two rounds. In the first round during the spring of 2005 it was decided to fund five projects. Four of these were reported during 2007 and this report completes the publications from the first round. In the second round during the spring of 2007 it has been decided that a further five projects will be funded. These will be reported in 2009. All project reports are published in this publication series dedicated to this programme. At the end of the programme, a synthesising report will also be produced where the most important findings are discussed.

Nordregio wishes to thank the Nordic Senior Official Committee for Regional Policy and the Nordic Council of Ministers for providing this unique opportunity to develop new research-based knowledge and for encouraging cooperation and the exchange of ideas between Nordic researchers.

Nordregio would furthermore like to thank all of the involved research teams and the programme's Steering Committee for their continuing contributions to the Nordic discourse on regional development.

Ole Damsgaard
Director

Margareta Dahlström
Coordinator of the research programme

Authors' preface

Ten years ago, the policy orientations, preferred policy strategies and interaction patterns among the professionals in environmental and planning, transport and agricultural administration, at regional and central level, in the Nordic countries were investigated (financed by the Nordic Environmental and Social Research programme). When Nordregio launched their Nordic research program on *Internationalisation of regional development policies* we saw the unique possibility for documenting possible policy shifts as reflected in main policy orientations, with a time-series of diachrone data for policy variation within the environmental and environmentally-relevant policy field – within sustainability policies – the last decade. As a point of departure we replicated the earlier questionnaire, with some limitations and supplement – and this time organised as a web-survey.

The research project has been carried out in the period 2005 until 2008. When it was launched, the project was intended as a pre-project, it was calculated – and got financing – for twelve weeks work. Due to some unfortunate circumstances, the data collection in all countries was delayed, and the project turned out to be financed only for eight weeks. We collected data in Norway in autumn 2006 and in Denmark and Sweden in 2007, and the analyses and report writing was done during spring 2008. The project, and the authors, were at NIBR (Norwegian Institute of Urban and Regional Research) when the project was initiated, and the first part of the project (the Norwegian data collection) was organised there. Later on the projects and the researchers moved to TØI (Norwegian Centre for Transport Research), and the project has later on been managed from here.

Professor Arvid Strand, head of the department for organization and implementation at TØI, has been the project leader, and been responsible for the qualitative interview material (the questionnaire's 'open questions'), whereas Vibeke Nenseth, chief research sociologist for the sustainable mobility group at TØI, has been responsible for the comparative quantitative analyses.

We want to thank all our respondents in the environmental, cultural heritage, planning, and transportation agencies at regional and central level in Denmark, Norway, and Sweden. We have learned a lot!

Oslo, april 2008

Arvid Strand

Vibeke Nenseth

1. The research field

Regional governance in the Nordic context are in transition – and in tension; between central and local politics, between coordinative and sectorial tasks, between conventional and innovative management. The regional policy level is strongly focused, both celebrated as well as highly contested. Thus some special conditions for policy change should be provided: Either that the melting pot of new initiatives and solutions regionally shapes a policy-making particularly innovative and flourishing, or quite contrary, that the all too contradictory situation implies cemented solutions, implementation deficits or futility.

This project addresses the changes and differences in Nordic regional governance the last decade. We will investigate policy shifts particularly at the regional level – and search for some projects and innovations within a sustainable regional development framework. We will focus on the broad sustainability field, both of conceptual and substantial reasons. Sustainable policy-making is a highly innovative policy field when it comes to new conceptualisation, new framing and problem definitions. The question is, however – after more than two decades since the Brundtland report – whether the ‘sustainable turn’ in regional policies is – still – mostly a rhetorical ploy. At the same time, the tasks and responsibilities at the regional level have a substantial importance for sustainable development, e.g. comprehensive and spatial regional planning; environmental policy, transport policy, facilitating measures towards business development and peripheral areas. Still, it has just few years ago been concluded that ‘...*there is a distinct lack of awareness amongst Nordic regional policymakers and researchers of the existence of SRD [sustainable regional development] theory and practice*’ (Clement & Hansen 2001).

Addressing policy shifts in the sustainability field at the regional level is vital for tracing potential new directions in regional governance for a sustainable development. At the same time, focusing environmental and planning professionals at the central and regional level, means studying the main “implementors” of the sustainable and regional, i.e. a litmus test of how the policies are implemented. Thus the project should be of high policy relevance.

The objectives of the project have been to investigate policy shifts as reflected in the policy orientations among the professionals in particularly sustainable policy fields, in planning, environmental and transport, at regional and central level, in the Scandinavian countries the last decade. Ten years ago, the interaction patterns and policy orientations among the public officials in these agencies were investigated (in addition, the agricultural sector and also Finland) This project has replicated the survey, which has provided a unique possibility for documenting policy shifts, with a time-series of diachrone data on important policy change within the environmental and environmentally-relevant fields. The survey was replicated – with some limitations and supplements. We have examined and looked for changes in policy orientations and strategies, and supplemented the earlier questionnaire with requests for the professionals’ view on particularly innovative governance practices, developments or regional hotspots in the Scandinavian countries.

1.1 Regional governance and sustainability – change prone relations

The conceptual combination of ‘regionality’, ‘governance’ and ‘sustainability’ is both promising and challenging. They all represent significant common features, but also very different policy modes and traditions. Common is the emphasis on policy integration: A *territorial* cohesion at the regional level; public-private *networks and partnership* in governance, and a *comprehensive and interrelated* perspective across the ecological, economic, and social dimensions of sustainability.

The *regional* level is an important policy node between different sectoral policies and between local autonomy and central constraints. It faces the difficult intermediary role with conflicting responsibilities and expectations. It has been subject to a huge reforming and

reorganisation phase the last years. Traditionally, the regional policy administration has a two-sided role, both specific regional tasks and responsibilities, that either are too extensive for the local level or too detailed for the central level. At the same time it has a superior or supporting role towards the local level. Policy integration is by no means a new trend at the regional level, it has since long been institutionalised by a well-established regional comprehensive *planning* traditions. Several evaluations of regional plans have, however, often concluded rather negatively on behalf of regional planning as an effective and widely approved policy strategy (Nenseth & Naustdalslid 1992, Falleth & Johnsen 1996).

The *sustainability* agenda has, however, in certain ways revitalised the planning system within public administration. Despite its policy *integrative* character, comprehensive planning has, paradoxically enough, primarily been defined in *physical* terms, especially at the subnational: the regional and local level. Because of the lopsidedness on the physical, exterior environment, traditional regional planning has easily been translated and transformed into sustainability policies with its overarching emphasis on the environmental problems. (Nenseth & Strand 2001).

According to the argumentative (Fischer & Forester 1993) – or communicative – turn in planning theory, the practice of planning is quite compatible with a network and process-oriented governance perspective. Such a policy planning does not attach importance to just one substantial policy field, but seeks to encompass the economic and physical, the social and cultural dimensions in one and the same comprehensive planning process. The resemblance with the sustainability conceptualisation is similarly striking. Already when the concept of ‘sustainable development’ was officially launched, in the Brundtland Report (UN 1987), the combined ecological, economic and social-distributional aspects of the concept were emphasised. While the ecological aspects concern the eco-systems’ limits of tolerance and preparedness in a global and long-term perspective, the social dimension includes both the intra-generational and the inter-generational well-being - the contemporary global distributional equity as well as the quality of life for future generations. In the elaboration and development of the concept of sustainable development, the three dimensions (the ecological, the economic and the social) and later on, a fourth (the institutional dimension) were extracted; a conceptualisation characterised as the “prism of sustainability” (Spangenberg 2000). The institutional dimension is of significant importance for the conceptualised or cognitive and particularly for the *political integration* of the different aspects of sustainability. The institutional dimension is easily seen synonymously as a *governance* dimension.

A *governance* perspective is particularly applicable in a regional context regarding the multitude of political, social and economic actors and the amount and intensity of interaction. At the same time the governance perspective may be seen as particularly relevant when it comes to politics of *sustainability*, because of the multidimensional character of sustainable development, the redefined diagnosis and innovative problem definitions in this particular policy field, and the strong demand and search for new kinds of policy instruments.

A governance perspective looks beyond the formal structure of ‘government through representative democracy in the public sector’, to the wider picture of decision-making in the common interest (Ravetz 2000:252). It is a perspective where the governing horizon is both raised and lowered: it is significantly raised or enhanced when it comes to which actors, interests and concerns that are involved, but considerably lowered concerning the steering ambitions and belief in directly public regulation (Nenseth & Naustdalslid 2002). The governance perspective emphasises the interactive character of new public policy. Thus governance might be seen as a matter of new modes of communications and decision-making (ibid.); inter-organisational analysis by focusing new alliances and partnership – between public, market and civic sectors; new patterns of institutions, networks and representation; and a shift from direct regulation to external regulation. Focusing societal forces within a political context deals with the discussion on the transition ‘from governing to governance’, i.e. an enhanced perspective on public policy and administration. Governance seems to be of particular relevance when it comes to seeking alternatives to problems of institutional inertia and

implementation deficits in a hierarchical regulating public sector – also applicable in conventional regional policies.

A new regional governance for a sustainable regional development is demonstrated by the endeavour of bringing conventional regional responsibilities in new directions – from traditional regional planning to planning for a sustainable regional development, combined with the invitation of new kinds of actors into the planning and policy-making processes across the policy levels and across the public-private borders. With a three step discursive model for policy innovation and change (e.g. Wagner et al 1991, Wittrock & Wagner 1992, Nenseth et al 2004) we could point to

- *first*, the launching of new ideas and arguments through volatile ad-hoc-relations
- *second*, the establishments of more firm policy networks, or discourse coalitions, of producers and users of new knowledge and problem solutions
- and *third*, the institutionalisation of new terminology, initiatives, and policy reforms through organisational procedures and routinised policy practices, i.e discourse structuralisation

An important research question is to decide to what extent any new ‘regional governance for a sustainable regional development’ is at the innovative, but volatile, mainly conceptual and rhetorical stage; whether more firm discursive policy networks with different kind of regional actors have been established; or whether there are some demonstrations of the third structuralised or institutionalised step for regional development policies. In short, what are the main conditions for better policy integration for a sustainable development? To what extent is regional governance the answer? In what ways – and why – do political, professional, market actors and civic actors take part in policy networks of regional governance with relevance for sustainability?

1.2 In search for policy innovation – through policy orientations

By *policy orientations* we mean the professionals’ view of various problem solution strategies in sustainability policymaking. Their policy orientations are important indicators of which policy strategies or kind of policy instruments that are most likely to succeed, in the implementation of conventional policies and the launching and implementation of new policy initiatives.

In the survey (Emmelin&Kleven 1999; Nenseth 1996, 1999) ten years ago in four Nordic countries (Denmark, Finland, Norway and Sweden), the investigation revealed (by factor (principal component) analysis), three main policy orientations among the officials at the central and regional level: one representing mainly *politico-administrative* like the belief in organisation, in legislation and a stronger involvement from politicians; another of the belief in *knowledge-intensive* problem solutions like research and guidance, and a belief in technical solutions; and finally, a factor which consists of the belief in interaction, de-specialisation and interdisciplinary as important sustainability problem solutions. For short the factors are called the **‘bureaucratic’**, the **‘technocratic’** and the **‘plurocratic’** policy solution. What’s interesting is that the ‘plurocratic’ policy orientation saliently resembles what we more often today would have called typical interactive policy network or *governance* solutions.

What discerns between the bureaucratic and technocratic solutions was primarily the view that politicians should get more directly involved in problem-solving – the dilemma between professional or political solutions in environmental protection – but also the belief in more responsibility and interpretation from each agency. What discerns between the bureaucratic and plurocratic was particularly the belief in regulation or legislation. The technocratic and plurocratic dimensions were both, in different ways, knowledge solutions – the first in specific expert knowledge, included technological, the other in general knowledge solution like research and guidance, and ‘de-specialised’ knowledge like interdisciplinarity. Some policy orientations

have factor loadings on two or all the components, for instance the support for research, for planning, for guidance and for economic instruments.

Multivariate analyses showed that the country differences were the main explaining factors behind the bureaucratic solutions. Neither agency nor educational differences meant so much, the personal variables found that older professionals were more 'bureaucratic' than younger, and women somewhat more than men. The bureaucratic solutions had a special holding in Norway, the technocratic in Finland. All three orientations were supported almost equally in Sweden, whereas especially the technocratic solutions had little support in Denmark. The support for plurocratic solutions did not vary much by country. For the plurocratic solution the gender differences were significant; women were much more in favour than men. Of the agencies, we found that the planning agencies – that often have strong integration tasks within the administration – were strongly supporting the plurocratic solutions, together with the very specialised agency of cultural heritage. The support was less at the regional than at the central administrative level. Some educational differences were also significant; architects and social scientists were much more supportive than the other groups. And not so surprising, those in disciplinary majority were not so interdisciplinary oriented, compared to those in mixed agencies. What really mattered for a strong support for plurocratic solutions, however, was kind of position and task. Leaders were much more in favour than non-leaders, and those with more often environmental work, more in favour than those with less.

There were thus large cross-national differences when it comes to the bureaucratic and technocratic solutions, which indicated that these policy orientations primarily were strongly *institutionalised*, embedded in the political and administrative structure, culture and traditions in each country, across both educational, agency and other differences. That age of the professional matters so much for both these solutions also indicates that these orientations are functions of long-term socialisation and adaptation within the specific politico-administrative system in each country. For the plurocratic solution the country differences were small. The professionals both in peripheral agencies and minor or peripheral educational groups within the environmental administration were supportive, but so is also the most central and leading environmental professionals, and not least the most interactive. It seems thus to be quite different reasons to support the plurocratic – the broad governance-like – problem solutions.

One important conclusion was that if institutional factors are decisive for continuity and stability, and interactive or discursive factors are crucial for policy innovation, then we would expect more change prone and dynamic perspectives among certain groups among the environmental professionals – i.e. those who are particularly 'interactive', have high expectations, are in disciplinary minority and have a critical or a conflict rather than a consensual perspective. There is, however, a dilemma between innovation and integration. For innovative perspectives to matter in policy-making, certain integration and consensual mechanisms are necessary, for instance in terms of policy networks or (knowledge networks or what Haas has called 'epistemic communities'). The question to follow up in a particular regional governance study now is to find the conditions for when policy network interaction provides a powerful synthesis – rather than just a pluralistic paralysis.

2. Methods

We have had both a quantitative and a qualitative approach in this study. We have performed a survey as a replica of the former investigation ten years ago of the professionals in the environmental and planning administration, including cultural heritage management, and in addition, including a highly environmentally-relevant sector as the road or transportation authorities at the central and regional level¹. The questionnaire has this time been enhanced with some questions on regional policy making and regional project experiences, to catch good and bad examples of regional governance in the sustainability field, i.e. to grasp some possible innovation oriented projects.

The survey has been web-based. It has been quite a job to get the allowances and the formal acceptance, followed by a list of the e-mail addresses. To keep the project costs within the boundary of a small project, we had to limit the analyses to a minimum. That means, on the other hand, that we now have a rich material that advantageously could be further analysed.

The web-survey was sent to environmental, planning, cultural heritage, and transportation authorities at the regional and central level in Denmark, Sweden and Norway. Our intention was also to catch the Finnish administration, but due to language problems (translating to Finnish without any possibility within the project to quality control the local adaptation) and not least the difficulties for non-finnish speaking researcher to get hold of the e-mail-addresses from Finnish web-sites, we had to surrender this attempt. One important lesson to draw is that Nordic comparison should include a researcher within the country to be able to translate, to be properly informed and to adapt the project design directly to the local, national context.

Table 1 provides an overview of the number of respondents from the various kinds of agencies that we have tried to reach. For the cross-country comparisons we classified the various agencies into four types (see the column to the right): environmental agencies (envir); planning agencies (plan); cultural heritage agencies (cult) and road/transportation agencies (road). These differentiations are not, however, completely mutual exclusive in 'real life'. For instance, sometimes cultural heritage professionals work within the environmental sector (i.e. as an own department within the Norwegian Ministry of Environment); and sometimes cultural heritage professionals work within an integrated regional planning agency (at the regional level in Norway), and some within a separate agency, as a special Directorate for Cultural Heritage at the central level (also in Norway).

¹ ~ for capacity reasons we had to omit the agricultural sector in this survey

Table 1: The respondents' agencies, in Denmark, Sweden and Norway.

<i>In original language:</i>	Norway	Denmark	Sveden	Agency type
Miljøverndepartementet	54			envir
Samferdselsdepartement	20			road
Direktoratet for naturforvaltning	47			envir
Vegdirektoratet	53			road
Statens forurensningstilsyn	85			envir
Riksantikvaren	35			cult
Fylkesmannens miljøvernavdeling	146			envir
Fylkeskommunens plan-/miljø-/regionalforvaltning	152			plan
Statens vegvesens regioner	62			road
Annet – regionalt	40			plan
Miljøstyrelsen		64		envir
Miljøcenter		157		envir
Skov- og naturstyrelse		141		envir
Kulturarvstyrelse		24		cult
Vejsektor		10		road
Regionalt niveau		12		plan
Miljödepartementet			2	envir
Transportetat i Näringsdepartement			4	road
Naturvårdsverket			10	envir
Vägsektor			2	road
Riksantikvar			4	cult
Regionalt niveau			62	plan
Totalt	694	408	84	1186

2.1 Fringed universe, few answers

The very few answers, particularly from Sweden, must obviously have the difficulties by catching email-addresses as the main reason. In Sweden, no addresses were accessible by the institution's web-site, and we had here only the possibility of asking a 'mediator', most often the institutions' information responsible (who actually was found on the home-page) to send the survey further, to whom s/he thought it might concern. Interpreting results from Swedish variation and differences should thus be done very carefully.

We have, however, no intention of a *generalising* to any 'complete administration' in the three countries. Firstly, not only is our universe a bit fringed, there are no strict borders between those who perform tasks that are environmentally or regionally relevant to policy development – and those who do not. The universe is fringed, also because these type of agencies are so highly reform- and reorganisation-prone. Our respondents, about 1200 Scandinavian environmental and regional professionals, thus 'speak only for themselves'. However, it might be of interest to take a closer look into what they express, not least because we might suppose that we have got in contact with perhaps the most interested or enthusiastic professionals, since they actually (bothered to) answer... Luckily, we do not have the problems of just a sample investigation in the first place, since we actually have tried to reach *all* the environmental and regional professionals. Thus we do not have the problems of generalising from any sample to a universe. Our selection (the respondents we hoped to reach) was actually our whole universe.

Second, there have been special methodological problems here because of the difficult access to the email-address (cf. next paragraph). Third, we have also had some special problems with the methodological technicalities – actually because in the Norwegian web-

survey we used one type of web-survey-software (at NIBR) and in the Danish and Swedish we had to use another software (at TØI).

Table 2 discerns the various types of agencies, by country and administrative level. We are particularly missing Swedish ‘environmentalists’, to balance with the same kind of environmental administration in Norway and Denmark. In Denmark, we lack particularly some planners (but, perhaps, there are not so many planners, or at least not planning agencies, left after the recent huge regional reorganisation?)

Table 2: Type of agencies. By country and level

		central	regional	total
Denmark	Oth	5	3	8
	Envir	124	238	362
	Plan	0	12	12
	Cult	19	5	24
	Road	0	10	10
Norway	Oth	1	14	15
	Envir	184	145	329
	Plan	1	183	184
	Cult	35	0	35
	road	73	62	135
Sweden	Oth	1	2	3
	envir	11	1	12
	plan	1	61	62
	Cult	4	0	4
	road	1	5	6
		460	741	1201

The respondents’ answers to the question: ‘How often do you work with environment affairs’ finds that 66 percent in the material work with environmental cases at least weekly, 77 percent at least monthly. See Table 3. The numbers are 74 percent in Denmark, 78 in Norway, and 68 in Sweden. More respondents have environmentally related work at the central level (82 percent at least monthly) than at the regional (73 percent at least monthly). 88 percent in environmental agencies, 75 in cultural heritage agencies, 59 percent in planning agencies and 48 percent in the road/transport administration claim they work with environmental affairs more often than monthly.

Table 3: How often environmental work

<i>How often environmental work</i>	<i>N</i>	<i>Percent</i>
every week/more often	707	66 %
every month	120	11 %
sometimes a year	138	13 %
seldom/never	120	11 %

2.2 Difficult access to e-mail-addresses

Unlike ten years earlier a huge change has been the access to information in general and for data collection in particular through web-based survey methods. We could easily suppose that our 'universe' – environmental and planning professionals at the central and regional level in the Scandinavian countries, – were mainly 'desk officers' working continuously with computers and internet access. However, it turned out that the release of the e-mail-addresses was pretty hard to bring about. In Norway, we found e-mails on some of the agencies' web-pages and finally got all the e-mail-addresses by directly contacting those in charge of internal administrative affairs or information within the agencies (see next point). In Denmark, we found most of the e-mail-addresses on the web-pages, but in some cases, we made a request to whom we found to be the information responsible within the agency, to kindly send the web-survey further to the professionals within the selected agencies. In Sweden, we hardly got any e-mail-addresses directly from the web-pages, and had to indirectly ask the web- or information responsible within the agencies, to send the web-survey further. The few answers, in particular in Sweden, obviously reflect the difficulties with so many only indirectly sent web-survey requests.

2.3 Professionals as one voice – a NPM effect or true weberian bureaucrats?

When trying to collect all the e-mail-addresses, we experienced also some problems, not related to the professionals' accessibility, or to disturbing them with time-consuming surveys, or other similar or, for a survey researcher, familiar methodological obstacles. In the project now the very reason for questioning the professionals on their views or policy orientations at all, was problematic. The argument went like this: since they are administrative professionals, they do not - or should not – have any opinion on policies and strategies of their own, but they are solely expected to express the ministry's, the directorate's or regional authority's official policies in the field. What seems salient by this point of view are the New Public Management (NPM) principles of distinct division between political goals and administrative execution, and between the politician's as principals and professionals as their agents. From a more classic point of view, such a standpoint might also be interpreted as seeing the professionals as true weberian bureaucrats working and obliged 'sine ira et studio', without anger or passion, and hence without affection and enthusiasm. However, these weberian ideal types, are hardly empirically found, and perhaps particularly rare among these environmental, cultural heritage, and planning professionals that we are addressing her. More often, we would expect to find them to be rather enthusiastically dedicated to their tasks.

However, this objection did not in the end have any further implications for our email-catching, and we got in this case the allowance to have them all.

2.4 Methodological comments from the websurvey-respondents

The web-survey opened for methodological comments, with lots of interesting viewpoints on regional and environmental questions in general and on the web-questionnaire in particular. Some find the questionnaire too long and time-consuming to fill out (and therefore they quit), and some find some questions of little relevance. Several have missed the 'don't know' category in the answering possibilities. One asks 'from where do we find him/her'. Some finds question formulations and concepts too vague and diffuse. Others, however, point to the questions as interesting and thought-provoking for their daily work

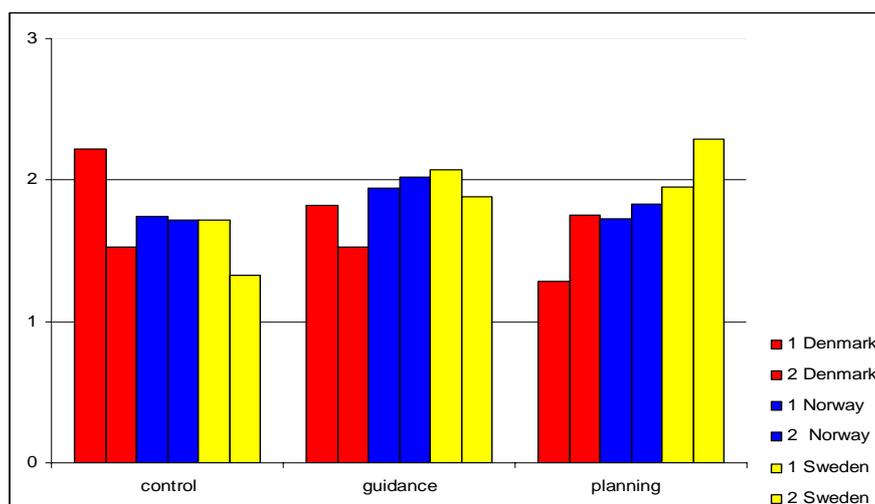
3. Changes in the environmental and regional administration the last decade

This chapter will present the results from the web-survey sent to professionals within environmental, cultural heritage, planning and road/transportation agencies at the central and regional level in Denmark, Norway, and Sweden. The quantitative statements on the main policy orientations among the professionals are presented. In this part we have the unique possibility of comparing with a similar survey sent to the same type of professionals about ten years ago.

3.1 Same kind of tasks: guidance most stabile; less controlling, more planning

What kind of tasks professionals are performing, might be seen as important *institutional* characteristics where the cross-country and over-time variation might figure out significant changes and differences. Figure 1 reveals the extent to which the professionals perform each type of tasks – control, guidance and planning – in Denmark, Norway and Sweden, nowadays (t2) and about ten years ago (t1)². There are somewhat more of guidance tasks compared to the two other, and with nearly no variation across country or time. Interestingly, control tasks have decreased a bit in the 10 year span in all three countries; a tendency quite suitable with diminishing regulatory and command-and-control strategies within public administration. Worth noticing is also the seemingly increased importance of planning as tasks in all three countries.

Figure 1: Tasks among the professionals. Control, guidance, planning. 1996 and 2006. By country. Mean



² the actual years for t₂ are 2006 for Norway and 2007 for Denmark and Sweden

Table 4: Tasks among the professionals. 1996 and 2006. Mean. By country, level, agency, education and gender

	tasks:	Control		Guidance		Planning	
		1996	2006	1996	2006	1996	2006
Country	Denmark	2,22	1,53	1,82	1,52	1,28	1,76
	Norway	1,75	1,71	1,94	2,02	1,72	1,83
	Sweden	1,71	1,33	2,07	1,88	1,95	2,29
Level	central	1,44	1,44	1,96	1,96	1,87	1,71
	regional	2,12	1,74	1,95	1,77	1,59	1,91
Agency	envir	1,97	1,72	1,92	1,78	1,57	1,70
	plan	1,60	1,33	2,10	1,98	2,15	2,18
	cult	2,13	1,82	2,11	2,18	1,74	1,54
	road	1,29	1,50	1,93	1,72	1,87	1,99
Educ	natasc	1,78	1,60	1,92	1,60	1,80	1,83
	eng	2,13	1,87	1,88	1,87	1,82	1,83
	socsc	1,25	1,23	1,89	1,23	1,84	2,04
	ba	1,46	1,95	1,79	1,34	1,67	1,94
	agri	1,71	1,34	1,98	1,80	2,22	1,54
	law	1,95	1,80	1,97	1,88	1,88	1,31
	arch	1,86	1,88	2,19	1,80	2,14	1,90
cult/oth	2,00	1,80	2,10	1,95	2,23	1,89	
Gender	woman	1,83	1,63	2,00	1,87	1,68	1,79
	man	1,88	1,62	1,93	1,82	1,70	1,86
	Total	1,86	1,62	1,96	1,84	1,70	1,83

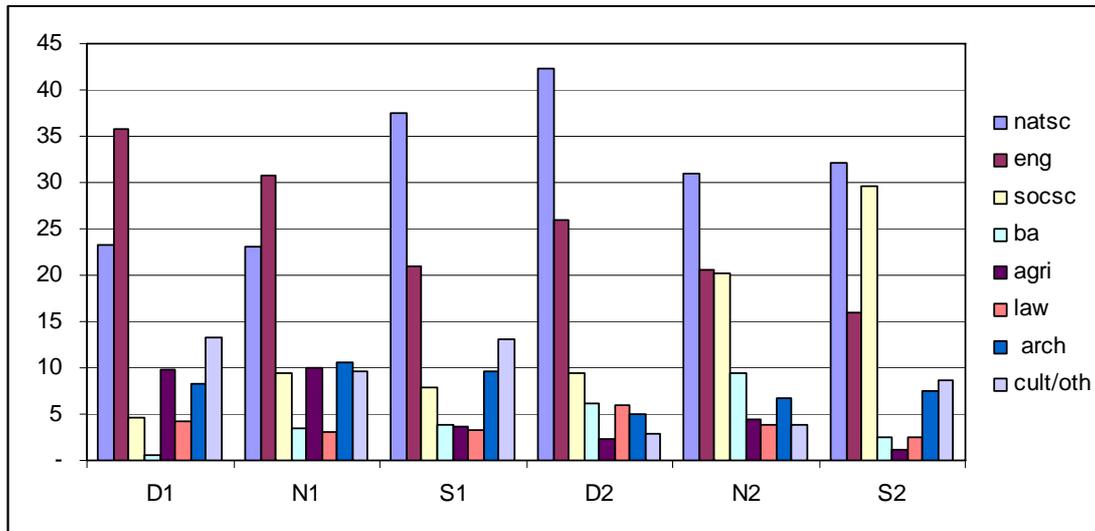
degree of performing the task.. 3: high degree, 2: some degree, 1: small degree, 0: not at all

In *Table 4* the tasks are distributed according to country, administrative level, type of agency, type of education, and gender. *Control* tasks were more salient 10 years ago, in Denmark, at the regional level, among those with cultural heritage agencies (to a certain extent the same as those with culturalistic (or other) educational background). Nowadays there is still more control tasks at the regional than at the central level, more in Norway than in the two other countries, and more variation among educational groups, where architects, lawyers, engineers and business managers, perform more control tasks than other. For the time being, there is much guidance tasks in Norway, compared particularly with Denmark, and still more among planning and cultural heritage agencies, but with less educational differences. When it comes to *guidance* tasks, there were more in Sweden, more in planning and cultural heritage agencies, more among architects and culturally educated – in 1996. *Planning* tasks seem to have increased in importance, slightly all over, for instance both among women and men. The gender differences else, are hardly noticeable.

3.2 More natural and social scientists, less engineers

When it comes to *education*, the changes are considerable. Relatively, there are today (t_2) far more natural scientists and more social scientists among our respondents than ten years ago (t_1); there have been less architects, agricultural scientists and lawyers (and less in a mixed group of cultural scientists/‘others’). (The changes at the central level show almost the same tendencies). See. Figure 2.³

Figure 2: Educational groups. 1996-2006. Percent within each country



³ the groups are: natural scientists, engineers, social scientists, business administrators/managers, agricultural scientists, lawyers, architects, and culturalistic educated (often art historians, ethnologists, archeologists)

3.3 More women, where women already are

Table 5: Gender differences. 1996 and 2006. Percent. By country, level, agency and education

		1996		2006	
		Woman	man	woman	Man
Country	Denmark	33,6	66,4	42,8	57,2
	Norway	29,1	70,9	41,0	59,0
	Sweden	37,7	62,3	44,8	55,2
Level	Central	39,4	60,6	47,6	52,4
	Regional	29,3	70,7	38,2	61,8
Agency	Envir	33,6	66,4	43,1	56,9
	Plan	34,2	65,8	43,4	56,6
	Cult	45,5	54,5	57,1	42,9
	Road	22,4	77,6	25,2	74,8
Educat	Natssc	29,1	70,9	42,3	57,7
	Eng	26,1	73,9	26,7	73,3
	Socsc	43,3	56,7	46,0	54,0
	Ba	52,5	47,5	50,6	49,4
	Agri	21,0	79,0	34,1	65,9
	Law	48,0	52,0	64,0	36,0
	Arch	38,8	61,2	49,3	50,7
	cult/oth	48,1	51,9	46,7	53,3
Total		33,3	66,7	41,8	58,2

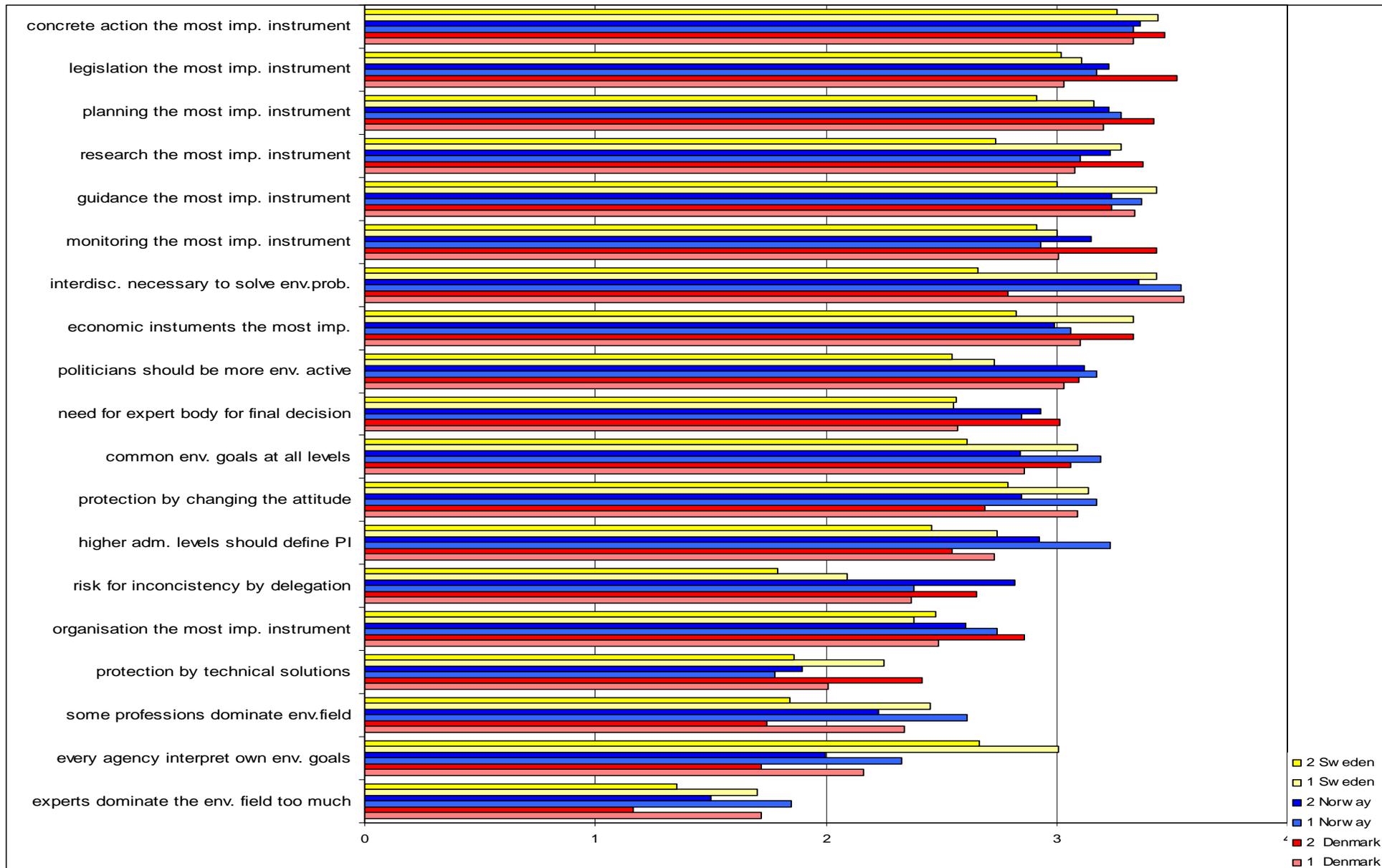
From 1996, the female share of the professionals has grown from one of three to more than 4 of 10. The female share has increased particularly in Norway, at the regional level, among natural scientist, lawyers and architects. In the cultural heritage agencies, where the female share also ten years ago was high, there is now a female domination of nearly 6 of 10. However, in the agencies and among educational groups where the female share was low ten years ago, in the road sector and among engineers, the female share is almost as low as then.

3.4 Surprising stability in policy orientations among the environmental professionals

Addressing the main policy orientations is interesting in order to track probable new trends and policy shifts among those who are responsible for putting the intentions from policies, plans and programmes into action. As the figure below reveals, the overall picture is stability, not big changes.

Figure 3 presents a battery of various policy orientations, strategies, main problem solutions in environmental policy making, on a scale from 'of high importance' (value 4), to 'not important at all' (value 0).

Figure 3: Policy orientations among the environmental professional. 1996, 2006. Mean



There are six 'units', each of the three countries, in both years. The support for *'concrete action'* is the most important measure in environmental politics. But almost as high is the support for *legislation*, for *planning*, for *research*, for *guidance*; as important instruments in environmental policy making. The viewpoint that *'interdisciplinarity is necessary to solve environmental problems'* is as important.

Less support has the statement that 'experts dominate the environmental field too much', there is also little support for the statement that *some* professions dominate the environmental field'. The local delegation argument - that every agency should interpret its own environmental goals - has little support. The same as the belief in 'technical solutions', interestingly since this solution has much public focus.

For the overall picture, what is striking, among all these statements, is the stability and little variation, across countries and across time, despite the methodological considerations according to variation in 'universe and sample' in this ten year time span.

3.5 The professional's ecological viewpoints

The next battery includes some of the statements from the original so-called NEP scale – New⁴ Environmental Paradigm – proposed by Dunlap & Van Liere to contrast the so-called Dominant Social Paradigm. When it comes to prioritising environmental protection, this statement has the highest score, particularly in Denmark and Norway. The anti-environment statements that *'employment is seen as more important than environment'*, and that *'the warnings of crisis are exaggerated'* have the least support of all.

Again, there is a striking stability in environmental attitudes, across time and countries. Interestingly, there are a couple of statements that have significantly less support now than 10 years ago. That is the opinion that *'ecological knowledge is uncertain'*. There is now, in all three countries, less support for the uncertainty of environmental knowledge. Knowledge, not least recently on climate change, has obviously got a stronger hold, among the professionals. Perhaps it also reflects the stronger certainty of this kind of knowledge also in public opinion in general? Because of the climate debate, it seems also likely that the argument that *'biodiversity is the most important task'* is less supported now than ten years ago. Another statement that has decreased in support is the belief that *population growth is a main problem*.

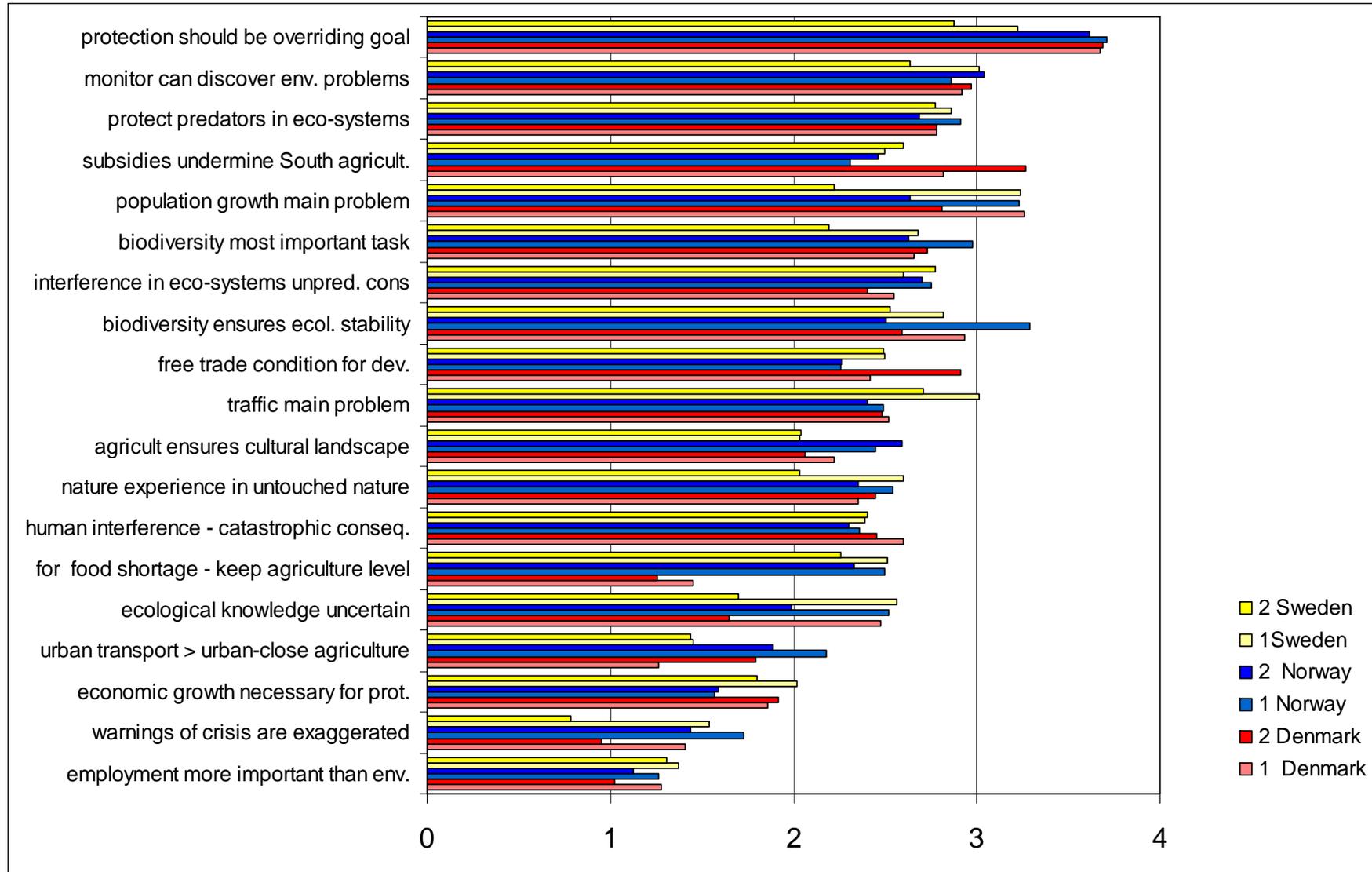
A change is present also when it comes to the global relations, perhaps due to a greater preoccupation and interest in the public debate. There is more support now for the statement that *'subsidies undermine the agricultural possibilities in South'*. However, there is no change in the belief that *economic growth is important for the environmental protection* – a statement that many would see as an axiom in the sustainability growth paradigm. There is an increase over time in the support for *'free trade is a condition for development'* – but only in (Fogh Rasmussens) Denmark.

3.6 Main results summed up

The overall impression for the changes and variation among the professionals in environmental and regional administration is a striking stability, despite all the debates, new steering ideologies followed by reforms and reorganisations, these public agencies have been subject to. There is almost the same kind of tasks, there are relatively some more natural and social scientists, and less engineers; more women, but more women particularly where there already are many women. When it comes to the policy orientations and environmental attitudes the stability over time is the overall impression.

⁴ "New" in 1978 (sic)

Figure 4: View on environmental relations. By country



4. Innovations in regional governance?

4.1 Focusing regional governance: squeezed but innovative?

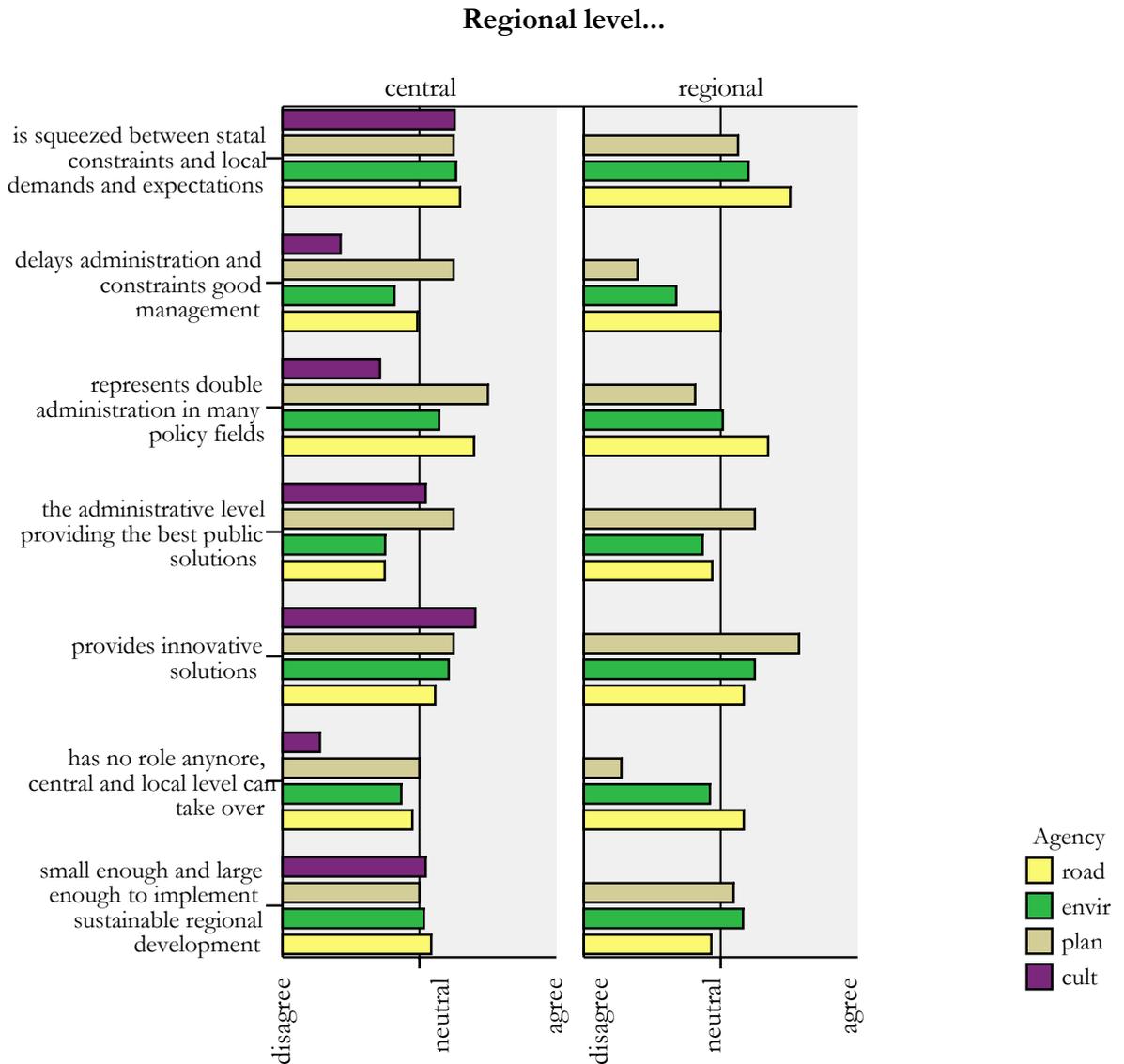
In addressing regional development policies, an important question is the standing of the regional level at all. Regarding all the major reforms and challenges the regional level has met in the Scandinavian countries the last years, it is interesting to see what kind of role any regional administration is seen to have. In the recent web-survey we included some of these questions of regional governance, regional steering, viewpoint of what the respondents saw as important for a 'regional identity' – and finally, some open questions where the respondents by own words could address important regional hotspots, good projects within the framing of sustainable regional development; and also some negative experiences, with unfortunate projects.

Figure 5 shows the views on the role of the regional level from the professionals within the environmental and regional planning fields. As we see, the regional level has (despite it has been rather contested) a pretty high standing.

Still, 25 percent agree that the regional level has no role to play anymore, many of them actually at the regional level themselves. All in all, the professionals within the field, claim the regional level to be squeezed, but at the same time as providing innovative solutions.

We see that the statement that the 'regional level is squeezed between statal constraints and local demands and expectation' is to a certain extent agreed upon. The view that the regional level provides innovative solutions is also supported. At the same time, however, many agree on the view that the regional level represents double administration in many policy fields. There is not so much support for the statement that the regional level should be terminated, i.e. that it has no role anymore, and that central and local level can take over (i.e. a two-tier system). There is almost no variation in the view that the regional level is of appropriate size (not too small, not too large). When it comes to level differences, we see that it is not the case that the regional level is much more supported at the regional level itself, but that the agency differences are more salient. The regional level is seen as innovative, particularly among the professionals in planning agencies (at the regional level professional working with cultural heritage is mostly embedded in other regional agencies, therefore no separate 'cultural heritage' regionally). The cultural heritage sector (at the central level) seems, however, particularly in favour of regional policy solutions – together with planning agencies, in supporting the statements in favour of the regional level and disagreeing with the opposing ones. The road sector is seemingly the sector least in favour of the regional level.

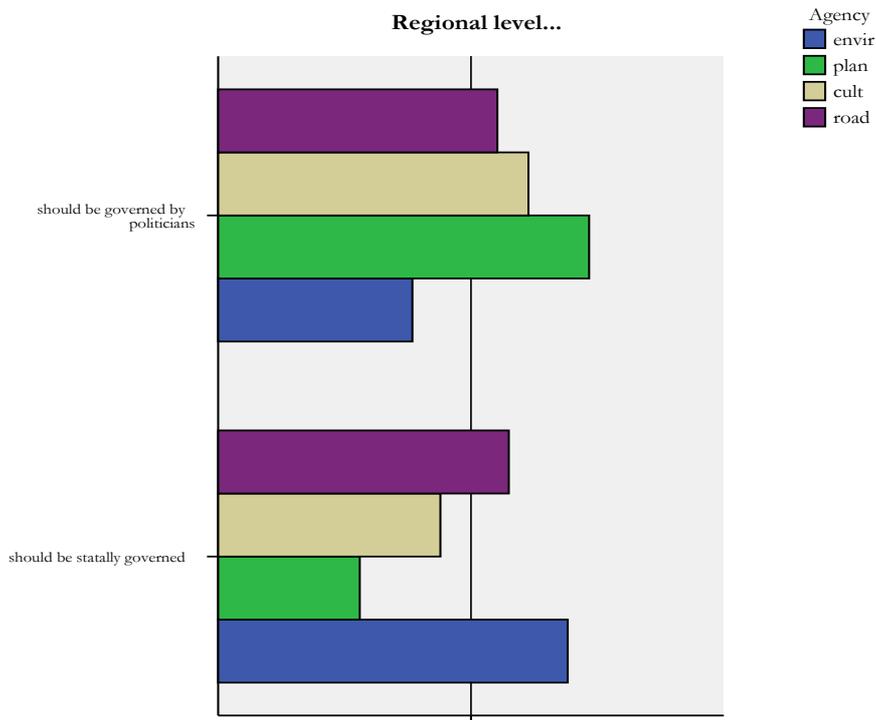
Figure 5: The professionals' view on statements on the regional level. Degree of agreement. Mean. By agency and administrative level



Double administration is not only an issue between administrative levels, but also within the regional level itself. All three countries have or have had until recently both directly politically governed regional management (Danish 'amt,' Norwegian 'fylkeskommune', Swedish 'landsting') and at the same time statal regional governing authorities. The regional level has been particularly focused the last decade, whether it has been strongly reorganised (as in Denmark) or, just highly discussed, (as in Norway) the last decade.

Figure 6 shows the support for either a directly politician governed regional level or for a statally governed regional level.

Figure 6: Statements on regional governance. Degree of agreement (left: disagree, line: neutral; right: agree. Mean. By agency

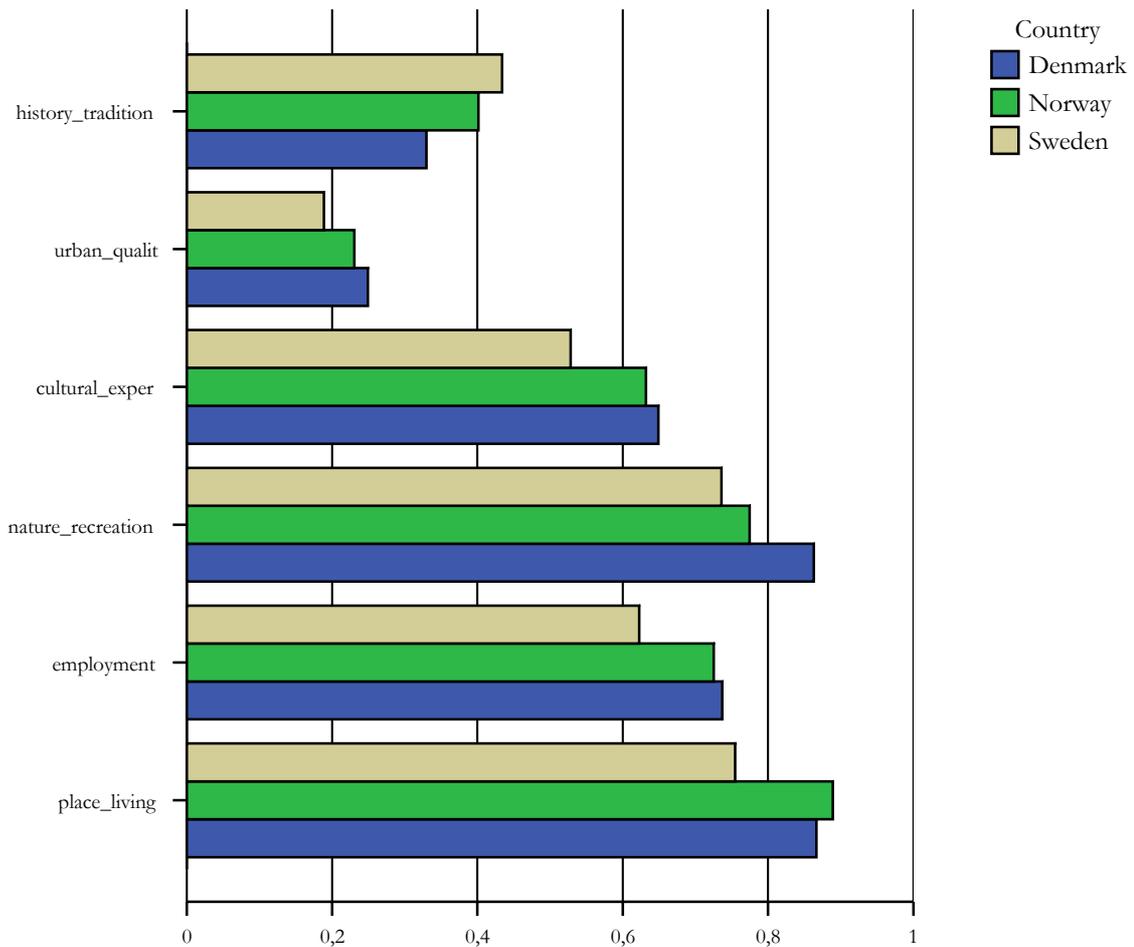


Unfortunately, we have no answers to these regional policy batteries from Denmark (by mistake it had fallen out in the Danish web-questionnaire). The distributions above are thus all based on the Norwegian and the (small) Swedish material.

4.2 Regional identity: place for family and nature important

When asking the professionals' view on *what is important to obtain a 'regional identity'*: 89 % say 'a good place for housing and for children to grow up (place living)'; 80 % 'nature and outdoor-recreation'; 70 % 'good employment'; 66 % cultural experiences; 41 % 'a common history, traditions, dialect, culture' and 23 % city/urban experiences.

Figure 7: Viewpoints on aspect important for regional identity. Share supportive (0-1). By country



4.3 Regional hotspots in Scandinavia

As we think the professionals working within the sustainability field are the best informants on potential policy shift documented in policy orientations and interaction patterns, we also believe that the professionals are the most important informants on recent innovative governance practices in the fields of sustainability or regional innovation. What they (who often have been in positions of supporting innovative projects financially or organisationally) consider as good examples or best-cases, might be seen as a crucial test for which projects there are reasons to call attention to at all.

In the questionnaire – in search for good examples and best cases – we have formulated questions that can give us information on main changes in regional development, important trends, hot areas and key issues (new ways of organising the planning and implementation processes, major development trends such as re-development of brown fields areas instead of occupying green-fields, increasing car-traffic, compact city development versus suburbanisation and urban sprawl, urban and housing revitalisation, e.g.). We have asked which of these

changes are in accordance with recognised principles of regional sustainable development, and how these trends have been translated into policies and plans, and to what extent from the professionals' view they have been a matter of planning and policy implementation at all.

In addressing the innovative projects that might be seen – more or less – as a consequence of good regional governance, a systematic approach might be fruitful. By taking literally that regional innovation most often concerns integrative, cross-cutting issues, across the sector- and the public-private borders, we look for particular projects and hotspot developments that are combined according to the table below. The most hotspot project might even be found in several cells?

Thinking in terms of multipurpose projects and innovation through cross-cutting issues, regional innovative projects (or processes) can be classified as follows:

	ecological – spatial aspects	economic aspects	social aspects	cultural aspects
ecological-spatial conditions		eco-labelled products/industry; clean technology	ecological life quality/ public health	region's ecological profile; regional identity as ecologically benign
economic conditions/capital			welfare market	culture industry/market, regions attractiveness, the regional marketing
social conditions/capital				cultural experiences, identity, connection/community
cultural conditions/capital				

For instance the renewal project of Akerselva in Oslo some years ago, is presented as a successful example of good multi-level governance, jointly serving ecological, social and cultural purposes as well as profitable entrepreneurship in the housing development project along the river. By thinking in terms like this, we might provide a catalogue of regional governance projects as pointed out by the public professional within the field.

Interestingly, many respondents express the complexity in societal development, like this:

‘Sustainable development seems to me as a word too fuzzy testing projects against. Most projects have external effects, sometimes opposite of the overarching objective (i.e. energy use in producing new technology and generating pollution and waste when the old technology phases out). Then the question of sustainability is hard to judge.’

Another quite similar example: ‘For instance, windmill projects in the region are problematic. The energy goal is highly overemphasised compared to biodiversity and landscape protection.’ But when the complexity is underlined, the respondents are pointing to a lot of general and more specific examples. We will give a short review of some of those that are regarded as sustainable:

- Comprehensive planning
- Integrated urban land use and transport planning
- Renewable energy production
- Ecological farming
- Forest development
- Water management
- Establishing national parks
- Local democracy as a threat to sustainability – need of state governing

Comprehensive planning

Comprehensive planning is in general seen as a sustainability strategy. The strategic part of the municipality comprehensive plan provides the local politicians an opportunity to regard to questions related to the environment. Regional planning in general makes it possible to coordinate challenges that can not be handled in a proper way at the municipal level; i.e. transport planning and coastal management.

One respondent notices, as a sustainable strategy, to make plans for cultural heritage management. Such plans provide the inhabitants information on cultural heritage phenomenon and in this way increases the chances that the heritage will be preserved for the future.

There are, however, also several opponents. For instance, there is an opposition against costly, locally developed, municipal climate plans, due to the complexity's global character, and the demand for international agreements and obligations on reductions.

Integrated urban land use and transport planning

Important aspects that are mentioned are urban development and densification, work place localisation and building of infrastructure, activities that should be coordinated. Localisation without paying attention to transport generation and the possibility to have the transport done by other transport means than private cars, have to be avoided. In greater city regions public transport has to be given priority by making it relatively better than private cars both qualitatively and in regards to costs.

Urban sprawl, without public transportation, is seen as particularly damaging. At the same time, by emphasising place development and 'sense of place', the local communities unique qualities are put forward, which in turn leads to local enthusiasm and sense of belonging, local mobilisation and local entrepreneurship, and reduces commuting.

The manifold, combined effects of sustainability projects are put forward also in other connections: Integrated road net for walking and biking, in connection with paths and tracks for outdoor-recreation are important, as a means for obtaining more sustainable – non-motorised – mobility, with minimal energy use in production of the vehicle, minimal noise and pollution, at the same time as sustainable health for the population is supported.

Particular promising Danish projects mentioned are:

- The metropolitan area's so-called '*finger plan*'. The plan assures that labour-intensive businesses have to be located near to stations on the rail- or subway system and that the urban development should take place in the fingers and not anywhere else. This is a model for integrated urban development, development of transport system and green structure both economically and functionally effective and environmentally sustainable. Strategies for localisation are effective ways to reduce CO₂ emissions.
- *Ørestaden*, urban development in Copenhagen. From the very beginning public transport – the metro – has been the forming infrastructure. This, together with locating the dwellings and other urban construction near to or in connection with the already existing urban fabric, have made it possible to let the open nature at Amager (Amagerfælled) be protected and be a part of the new housing structure.
- The city of Odense has made it a strategy to be a *city for biking*; making solutions that can make it possible to stop the increasing car dependence.

The respondents from Sweden point to many examples, among them:

- Building of the railway line *Botniabanan*. This line makes it possible to integrate several labour markets through easy and environmentally friendly transport possibilities.
- The same way enhanced investments on railway infrastructure in *Mälardalen* are in favour of both the economic development in the region and the environment.

- Two political decisions in Stockholm – introduction of the *taxation of rush traffic* in combination with more resources put into the public transport and the building of Citybanan through Stockholm – are marked by several Swedish respondents as projects giving inhabitants opportunities to have their need for transport done in an resource efficient and environmentally healthy way.

Also the Norwegian examples point to development of railways, urban public transport, increased feasibility for biking, reduction of costly road investments and enhancing accessibility for all, including the business and freight transport.

- Oslo's prioritising of *toll rings* and further development of the *metro ring system* is important for sustainable mobility with reduced CO₂-emission
- Increased local trains in big cities and metropolitan areas
- The launching of *centre development* in cities and towns, gaining both social and goals: more people in the streets, in public space and in public transport (and fewer in individual cars) enhances the social control, reduces criminal behaviour and enhances the local safety.

Among the Norwegian proposals were also that a central contribution to social and economic sustainability would be to put together the resources on the hand of the state to investments in roads and public transport and the like of resources for managing roads and trams and busses. And then use the money in the light of sustainability.

Renewable energy production

Windmills are an obvious answer when searching for examples on sustainable solution for generating electricity, and production based on handling enormous amounts of garbage; energy that had otherwise been lost. The respondent also mention local production of biofuel to be mixed up in ordinary gasoline.

Some examples from the Norwegian material:

- Dyroy energi; a locally based firm having designed and made operational a bio-energy plant producing energy for the local community based on local wood resources and materials from the building and renewal industry. The concept rely on and have actually realised a vision of totality; nature resources, competence, economy and social capital put into developing the local and regional society.
- Bio-energy at Hadeland; solving local energy problems in a sustainable way.

Ecological farming

Agricultural production has to turn around from today's situation with use of a lot of pesticides back to basic; farming in an ecological way. It is economy in producing food in an ecological manner and it is the only way of doing it sustainable, as one of the Danish respondents put it. By doing so we can pass on the agricultural landscape to our children, being sure we have managed it well.

From Denmark it is argued that the EU should put special demands on the farmers' way of managing their property to get special support. There should be a demand that a minimum part of the property has pure nature; in that way secure that flora and fauna is favoured and that the inhabitants are given the opportunity to discover nature.

Sustainable projects of this kind mentioned in the Norwegian materials, are:

- Numedalsprosjektet 'I grevens tid'; a strategic grasp on rearranging and development within area and culture based business; foremost the need for agricultural business development. Environmentally adjusted advisories are given to the producers.

- A reasonable development in agricultural land use will provide livable rural districts and a healthy tourism
- The ongoing project on wild reindeer in Setesdal-Ryfylkeheiene as a co-operation between municipalities and other central stakeholders

Forest development

Forest development is a type of project with manifold benefits. It will defend ground water and if the forest development is taken place near or in cities or city regions it will provide recreational possibilities within walking or bicycling distances and reduction of noise and air pollution. Respondents from Denmark mentioned forest development at Skanderborg og Odense as positive examples, while a Norwegian one says that forest protection through a voluntary process, is a promising sustainable development.

Water management

The EU Water Framework Directive – integrated river basin management for Europe is by several respondents pointed at as a central means for more sustainability. The directive establishes an innovative, bottom-up approach for water management based on river basins, the natural geographical and hydrological units and sets specific deadlines for member states to protect aquatic ecosystems. The directive addresses inland surface waters, transitional waters, coastal waters and ground water. It establishes several innovative principles for water management, including public participation in planning and the integration of economic approaches, including the recovery of the cost of water services.

If this directive is used by municipalities in ‘vand- og natura 2000-planer’ producing good and effective action plans, we have gained a lot, one of the respondents says.

Several respondents mention reshaping of river Skjern – Skjern Å – as an excellent example. Environmentally it is a big success, and socially it has, though local resistance, been a big effort for the local community. After a while even hardcore local opponents have called it a success. Through the project the river has been brought back to its former shape. The project is sustainable because it has provided the plants and animals along the river better living conditions and there has been less supply of disadvantaged chemical elements to Ringkøbing Fjord. This is the environmental benefits from the project. Then there are also economic benefits since the river has become a tourist attraction, and in this way serve the regional economy. The social benefits are due to the fact that the river has become a better recreational area; the paths along the river are very often used by the locals.

Many Norwegian respondents also put water related themes on the agenda when talking about sustainability. Some of the examples are:

- The project ‘Cleaner fiord’ – Renere fjord – has been of certain value for the fishing opportunities in the water basin and for the recreational use of the surroundings
- Through actions to prevent sewage coming into and by making the river through Drammen, a middle range city, accessible for all, the inhabitants of Drammen have got higher living qualities
- In many harbours, i.e. Oslo and Trondheim, actions have been taken to reduce the pollution and by monitoring trying to keep this new standard for the future, or even make it better

Establishing national parks

This is an opportunity to provide protection to special natural areas and nature phenomenon for public understanding. By doing it in combination with tourist development or other business activity, it will secure regional development. A Danish example is Nationalpark Vadehavet – not approved yet. Here the region will have an opportunity to promote an area

that in any circumstances will have special restrictions due to its nature and environmental qualities.

A Norwegian respondent stresses the importance of the management of national parks. These arrangements will probably provide a sustainable development together with a reasonable economic use of the areas in gain of the municipalities involved.

Local democracy as a threat to sustainability – need of state governing

The Scandinavian municipalities have the right to decide the land use within its borders. This right provokes many respondents or observers due to the decisions made and the results of many decisions. Governmental goals on protecting i.e. the coast line or wild reindeer are undermined by local decisions given priority to short time economic benefits when developers present plans. Alike respondents gives examples that public participation processes result in plans contrary to what is held as preferable by central government.

A Norwegian respondent declares that attempts to guide the societal development in a sustainable direction by making LA21-plans at the county level have to fail because we find the driving forces nationally or internationally. The central questions on sustainability can not, according to this respondent, be guided on the regional level. The inhabitants on a county level will not accept the price; reduced number of workplaces, reduced personal economy, increased prices etc.

Another one says that the county council can only with difficulty have an effect on the level of negative environmental elements in nature, higher consumption and other negative trends. Such questions can only be solved by good national and international politics. The focus has to be changed away from economic growth and growth in commodity trade to reach sustainability.

Redefining the role of politicians

It will surely be a sustainable project trying to redefine the role of politicians in a way that long time perspectives and responsibility get better circumstances. Today the perspective too much is on being re-elected. A respondent also wanted to see the developing of a modern political debate on central themes free from old stereotypes and cliché conceptions about fronts in politics on distribution.

Some unsustainable projects

At the end, we will list some of the many examples given by the respondents on projects and decisions viewed as not being sustainable. Among the more obvious things pointed at when less sustainable politics shall be shown, are not making a strong bid on public transport and doing too much investments in road infrastructure for private transport. Some of the project mentioned:

- Förbifart (by pass) Stockholm (planned), Södertörnsleden (planned and partly build), widening E4 (done), extension of Arlanda (planned and partly build). These examples show central figures in the planning process with antiquated thinking not in shape meeting the challenges of tomorrow, the Swedish respondent comment
- Four-lane highway through Vestfold while the railway has been neglected; the building of E18/E39 through Agder entailing growth in car traffic, increased use of fossil energy and increased CO₂ emission; building of E-18 with ten lanes between Asker and Oslo, etc
- Tromsøpakken – the Tromsø package – planned to give pedestrians and cyclists a sum of money has not given us more cycle lanes or footpaths. The car traffic is still being favoured

- Lofast, a new road through a continuous, uninterrupted environment with a minimal gain in transport economics

Among projects and situations mentioned as negative in view of sustainability within other sectors than the transport field, we put forward:

- The golf field established at Atlungstad; a farm with the most valuable soil and cultural landscape at Hedemarken
- Fornebu – the old airport of Oslo – with a unique possibility of shaping a sustainable neighbourhood on the site of the old airport, but so long without any success. There has been built according to private capitalistic principles and the result is nothing to wonder about. Due to bad multi-level governance (or rather due to conventional sectorised governmental failure) the plans for unique public transport solutions have ran into nothing
- centre and away from the main transport infrastructure; in the same way with the localizing of College of Vestfold at Bakkenteigen and the localizing of new hospitals and big shopping centres around Norway
- Localizing of the University in Trondheim at Dragvoll; many kilometres outside the city
- Salmon fish farms which due to escape is a threat to the wild living salmon
- A lot of efforts with marginal effect; i.e. systems for return of glass and cartons. A respondent says that you have to sort your glasses at home for 50 years to obtain the same effect as choosing train instead of plane once between Oslo and Stockholm
- And a lot of other examples mentioned by the respondents

Regional sustainable projects – summing up

We sum up by putting our table from the beginning of this chapter some of the proposals on sustainability given by our respondents.

	ecological – spatial aspects	economic aspects	social aspects	cultural aspects
ecological-spatial conditions		Renewable energy production Integrated urban land use and transport planning Ecological farming	Forest development Water management	Local democracy as a threat to sustainability - need of state governing
Economic conditions/capital			Establishing national parks	
social conditions/capital				Redefine the role of politicians
Cultural conditions/capital				

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