

# Between Science and Policy - The experience of the Danish Nature Council

**Peder Agger**<sup>1</sup>, Professor

Department of Environment, Technology and Social Studies, Roskilde University, Denmark.  
E-mail: [pa@ruc.dk](mailto:pa@ruc.dk)

**Abstract:** *The new Danish Nature Council is the latest successor in a line of councils that have existed formally since 1917 and informally several years before. The roots and reconstruction of the Council are described and seen in the light of the increasing complexity and internationalisation of society, and the consequent change in needs for expert knowledge. The border between science and policy has become more blurred. This is a challenge for the growing number of scientifically based advisory councils. A few examples of where the Nature Council has been involved are described as well as the general way the Council operates: Being conscious and explicit about its role, and more open, transparent and argumentative as one, among others of the debaters within one (prevailing) discourse. The conclusion places the Council as a part of ecological modernisation.*

**Key Words:** Nature conservation, scientific advisory, objectivity, sustainability, ecological modernisation

## 1. The roots of the council

As in many other countries, academics in Denmark have been giving advice to politicians concerning nature protection and management for more than 100 years. In the mid 19th century, members of the natural history faculty at University of Copenhagen became increasingly engaged in nature conservation. This resulted in the foundation of three institutions, the Danish Society for Natural History in 1833, the Danish Botanical Association in 1840 and the Danish Geological Association in 1893. In addition to the developments in the scientific disciplines, the large changes and intensification in the agricultural production and land-use in rural landscapes stimulated the growing interest.

The drainage of wetlands, cultivation of former heath land, spoiling of scenic landscapes and killing fauna considered as pests - such as the birds of prey - all contributed to a growing concern about the environment which finally led to the first NGO for nature conservation, 'Udvalget for Naturfredning' (The Committee for Nature Conservation) which was founded in 1905 on the initiative of the three aforementioned scientific associations (Madsen 1979). In the following years, the interest in nature, landscapes and, in particular, access to the landscapes spread outside these scientific circles. The ongoing industrialisation of society had led to the situation, especially near the larger towns, where the upper class bought up the best land along the coasts. At the same time, the growing population of workers and other urban inhabitants had a greater need for areas in which to spend their acquired free time and, over the years, increasing number of holidays.

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<sup>1</sup> Peder Agger is chair of the Danish Nature Council.

The urban population formed another basis for strong support for landscape and nature protection, and first and foremost a struggle for free access. This was articulated by the so-called regional tourist associations. This led, in 1911, to the foundation of the Danish Society for Nature Conservation which today has 160,000 members and is by far the largest NGO in this field in Denmark.

In the beginning of its existence there was a rather pronounced contrast between the Committee at the university, which primarily wanted to preserve the natural areas and threatened species, and the Society that struggled for public access. However, this was not strong enough to prevent co-operation in support of the first Nature Conservancy Act, which came in 1917. This act stated that a Scientific Nature Council (Naturfredningsråd), which could advise the administration, should be formed (Madsen 1979). This gain in scientific interest was, however, modified by the right the Nature Society was given to nominate some of the candidates to the Council.

The present Danish Nature Council is a successor of the first Nature Council, and has thus existed since 1917. Of the two NGOs, the Nature Society, little by little, took the lead, whereas the Committee for Nature Conservation became less and less active, and eventually closed down in the late thirties. The Nature Council survived. Nevertheless, the contrast between more exclusive scientific interests and the more public interest in access and outdoor living can be found even today.

Since 1917, it has been obvious that policy concerning nature conservation in this small and densely populated country has had to have both a natural scientific and a social dimension. Although these dimensions increasingly come to overlap one another and are thus difficult to keep separate, it has been generally accepted that the use of nature for recreation could be allowed as long as it does not lead to irreversible damages to essential nature (Friluftsrådet 1997).

Back in 1917, a scientifically based council was greatly needed because the authorities did not have a professional, scientifically based, capacity at its disposal. Since then, the recruitment of civil servants has changed considerably. Especially over the last three decades the central and regional authorities have employed ecologists, and other technical experts. The central administration has even been equipped with large scientific research institutes such as the National Environmental Research Institute, Danish Geological Survey, and the Forest and Landscape Research Institute which employ hundreds of scientific experts.

This development removed some of the 'raison d'être' for the scientific advisory councils. Moreover, in the mid- 1990's the Nature Council was nearly closed down. It only survived after a profound reconstruction for which there were various reasons.

Firstly, it was a wish among people in the Danish Society for Nature Conservation (the former opponent) that an independent board with scientific weight should exist as an alternative source to the government's 'own' staff and research institutes. Now and then debate in the press has criticised the Ministry for undue censorship of the information given by experts from the ministerial institutions to the public.

Secondly, the existing and former members of the Nature Council were able to convince the universities, where they came from, that the Council is a channel for mutual communication and influence, which is in their as well as the ministry's interest to maintain.

Thirdly, the Minister of Environment and his Government wanted an independent body to provide some sort of scientific advice to the Nature Protection Board of Appeal. This board is a juridical institution, i.e. a court consisting of members nominated by the political parties (one for each party represented in the parliament) plus two judges from the Supreme Court and a chairman appointed by the Minister.

Furthermore, more basic changes in the gathering of knowledge and policy processes have undoubtedly influenced the decision to keep the Nature Council alive. Environmental politics has become one of the fields which is most driven by technology and natural science. In

addition, the nature and environmental protection agencies have developed extensive mechanisms for generating scientific information from internal expertise to external advisory boards (Fischer 2000).

In a broader context, the history and changing function of the Nature Council can be seen in the light of ecological modernisation. Is the recent turmoil and the survival of the Council, which I will describe at the end of this contribution, to be seen as a struggle pro et contra the need of institutional reflexivity in modern society?

It has become increasingly important for ministers to deal with the tension between expert knowledge and democratic governance. I will come back to this, and for now just mention that in recent decades it has almost become a fashion to establish advisory councils to help the administration. According to the Danish Radio (DR), we now have more than 150 of these to advise different levels of the administration.

## **2. The terms of reference and structure of the council**

With the restructuring of the Council, which was fulfilled in February 1998, a new profile was introduced. Whereas the predecessors have been councils nominated according to the Nature Conservation Act, the Minister of Environment nominated the new council within the warrant any minister has to nominate advisory boards. This gave room for widening the field of competence.

In the terms of reference it is stated:

- That the Council should contribute to setting the sustainable development of nature and landscape on the agenda and ensuring that these issues achieve the same importance in the public debate as for example the economy.
- That it should broadly deal with issues related to legislation including nature protection, area planning, exploitation of raw material, forestry, wildlife and game management and so forth plus the more cross-sectorial problems related to nature and planning;
- That the Council should actively strive to counteract the erosion of the natural resources and processes which are the basis for society;
- That the Council should designate members to a handful of other boards and assist the Nature Protection Board of Appeals in finding appropriate scientific consultants.

From these points, it can be seen how the field has been considerably widened from nature conservation in 'senso stricto' to the far broader issue concerning all that might have an influence on nature and landscape, it and can be understood from the perspective of sustainable development. This mirrors the growing complexity in a society where nature conservation no longer can be seen in isolation from other societal developments.

In addition, the structure of the Council was changed. The former Nature Protection Board consisted of twelve members and two half-time secretaries. The new Council can only have three to five members (actually there are four so-called 'wise men'). The terms of reference state that they should be nominated as 'highly qualified independent scientists recruited from the non-ministerial part of the scientific community e.g. professors of Ecology, Botany, Zoology, Geology, Geography, Physical Planning and Landscape Architecture'.

The Minister designates the members for up to two periods of three years. The Council nominates new candidates to be designated by the minister. The minister decides who should be the chairperson.

Further, the Minister designates, for a three-year term, a board of approximately 40 representatives. They are recruited from four segments of society: The authorities, the commercial interests, the NGO's, and the scientific community. The members are formally selected by the Minister from the names put forward by the organisations, and, for the scientists, the Nature Council.

The board should discuss the reports from the Council and propose which other issues should be taken up. Their tasks are, however, somewhat contradictory, since it is also stated that the board has 'no competence to influence the work of the wise men' which means that the board has only an advisory function to the Council.

Generally, the integrity of the Council is underlined. Moreover, in the terms of reference it is further stated:

- That the Wise Men are expected on their own initiative to take up, analyse, and communicate information about any issue they may find appropriate;
- That it, on request, can (not should) answer specific questions from the Minister.

Thus, it is obvious that the whole set up aims at giving the Council a high degree of autonomy, and thus satisfies the wishes of creating an alternative voice to the other parts of the Ministry and to the Nature Protection Board of Appeal.

There is a small secretariat to support the wise men, and with reference to the Council. The staff is a team consisting of a Director, three other academic specialists, and a clerk. The secretariat assists the Council in collecting and synthesising documentation, arranging meetings, editing reports and so forth.

A budget, of five million Danish Crowns (670,000 ECU) per year, covers the running costs for the secretariat, meetings, travel expenses, publications, and salaries including 10 to 12 thousand ECU paid to each of the wise men or their institutions.

It is obvious that inspiration has been taken from the Economic Council, which is almost 30 years older. The Nature Council has a much smaller budget and there is a different field of operation. The only additional difference is that the Nature Council and its Board of Representatives are clearly separated. In the Economic Council, the chairmanship, which consists of the three wise men, form the executive board of the Economic Council, which consists of what corresponds to the Nature Councils Board of Representatives.

There is also some overlap between the two councils. One of the tasks of the Economic Council is to work with the interface between economy and nature, while the Nature Council is expected to work with sustainable development, which according to mainstream understanding involves three aspects: The environment, society and the economy (Nordisk Ministerråd 2001).

Internationally, the Council has become a member of the European Environmental Advisory Councils (EEAC). This is a co-operative organisation with a broad variety of some 25 scientifically based advisory boards from all over Europe. In addition to annual meetings, 2-3 working groups are active. Initiatives are also taken ad hoc. for example related to the EU Commission.

Thus, we can sum up this description of the Council with the observation that although the scientists always have had a political agenda right from the beginning of the nineteenth century, this has only been unveiled or understood gradually. In this way, we may say that the scientific expertise has increasingly been politicised. At the same time, society, including nature management and conservation, has become increasingly complex and thus subject to the influence of experts. We are living in an increasingly expert driven society. We may say it has become 'expertised'. In addition, many countries have witnessed increasing pressure on their environments, partly due to the same causes, and this has led to the increasing

internationalisation of nature conservation.

In the following, these three processes will be discussed by giving some examples of the problems we have met being situated in the interface between science and policy. However, before we do that, I will reflect on the Council's terms of reference.

### **3. Our interpretation of the terms of reference**

It is obvious that the independence of the Council is crucial. The other stakeholders contributing to setting the public agenda, such as those represented in the board of representatives, the press, and the politicians, all have their ministers, members, customers, advertisers, and supporters' interests to take care of. In this arena, a council giving the highest explicit reference to scientific judgement may fill a gap that can be beneficial for public debate and from time to time helpful for the politicians as well.

This is not to say that independence will lead to an objectivity that can tell us how things really are - the scientific truths. Scientific objectivity only exists in theory. Even 'scientific facts' cannot be taken as purely objective. One may distinguish between what can be named 'institutional facts' and 'crude facts'. Institutional facts are commonly accepted knowledge within an institution. They can be questioned if not inside then at least from outside. Crude facts are indisputable as such, but their relevance is always embedded in a value-based context, as has been pointed out by Turner & Wynne (1992).

Instead of facts, we would be better off talking about knowledge seen as a social construction. And we in the Council agree with our Dutch colleagues in saying that 'the way in which knowledge is used in complex questions can better be expressed in terms of a political struggle, or at least in terms of differences in the perception of problems, the conducting of negotiations, and the forming of alliances and such (Veld 2000).

Saying that true objectivity only exists in theory, is not the same as saying that objectivity is not something worth aiming at. Although it may present some difficulties, because advisory councils set up by ministers are created as an integrated part of a policy formation context, and at same time appealing to the vernacular perception of science as purely objective. Positivist science still dominates the public understanding. What, then, is the council's role? „Policy making is in fact to be analysed as the creation of problems, that is to say, policy can be analysed as a set of practices that are meant to process fragmented and contradictory statements to be able to create the sort of problems that institutions can handle and for which solutions can be found.“ (Hajer 1995).

This characterisation suits our own understanding of what we are doing in the Council. We are collecting fragmented and often contradictory knowledge and processing it so it has the right level, quantity, direction, and timing to be picked up by others for example the administration, the Minister, or the press.

The way in which we interpret our job description is therefore that the Council should literally work at a more fundamental level than the others who influence the societal agenda. The former chair of the Economic Council has made similar considerations (Kærsgård 1996). He makes it a requirement that the council undertakes a professional debate until the point where no more is to be said, and the politicians can take over.

In our opinion, we say that we think broader and more far-sighted than the others in the arena do. Further, the Council should keep to the scientific basis and at same time be aware of the necessity of communication in a way that non-experts that is ordinary people and politicians can understand. In addition, finally, what may be the most important requirement: to be explicit about where the always inevitable value judgement of any kind comes in. Instead of scientific objectivism we prefer to call it enlightened subjectivism.

## **4. Examples from the first three years**

Many policy-makers think that there is a linear relationship between policy and knowledge, and many scientists still believe in ‘speaking science to the powers that be’ i.e. they assume that if the politicians get the right scientific information they will act accordingly. Within such a rationality, things are simpler than the complex reality we have met. In the following, I will reflect on a few of the cases that we have been involved in over the past three years.

### **4.1 The first attack**

A first and for us unexpected attack was on the credibility of the Council almost before we had started. In a front page article in the daily newspaper with the widest circulation (Jyllandsposten 31/8/98) the Minister of Energy and Environment was accused of having too intimate relations to the Danish Ornithological Society. In general, he was criticised for having created too many advisory councils and committees staffed with good friends for mutual political and economic benefit and profit. This fits with Fischer’s observation: politicians must increasingly justify their decisions by appealing to analyses of their coalition experts (Fischer 2000).

I, as the chair of the Nature Council, was depicted as the proof of this practise. It was maintained that I was a member of the board of ORNIS CONSULT, a firm owned by the Ornithological Society. I replied to this in an article (a week later in Jyllandsposten 6/9/98) stating that I left ORNIS CONSULT before I became chairman of the Council, and that I was unpaid. It is not me, but my department that is paid for my absence.

There the debate on this particular case stopped for a while. However, the criticism of the minister of having created too many boards and committees in general remained, especially if they are staffed with allies. The borderline between science and policy was becoming increasingly blurred by the day as the process of politisation of science and expertification continued. Too many types of councils may lead to over-application of scientific rationality. Nevertheless, the question remains: What should the alternative be, when other areas are also transferred from politics to expertise? Is it not better to have the advisory role formalised? We have some kind of an answer to these questions now. This I will return to them at the end of this article.

### **4.2 The wise-men’s report 2000**

One of the activities that the Council is expected to perform is to publish an annual report on an issue after our own choice. In the year 2000, the choice was to be broad. We realised that the Council does not have the resources needed to make a better status report concerning nature than that of the newest edition made by the Ministries research institutes for example Bach (2001). On the other hand, they are not able to make a broad and independent evaluation of nature policy, and therefore we chose to provide such a report.

For this purpose, we organised 30 different independent researchers and experts from universities and other institutions and asked each of them to write their own chapter. The report turned out to be three volumes long entitled ‘Danish policy concerning nature - knowledge and evaluation’, ‘Danish policy concerning nature - in the perspective of sustainability’ (Holten-Andersen 2000) and ‘Danish policy concerning nature - visions and recommendations’ (Agger 2000).

The authors who wrote the first two of these reports were given the right to write what they liked as long as it was approached from their own field of expertise, following a crude disposition: (state - trend - recommendations), and as long as the essays were kept within a certain length. On the other hand, the Council was free to use whatever they wanted from these two reports while the wise-men wrote the councils ‘own’ (third) report with its visions and recommendations.

Now we can say that it has been a success. In March 1999, the OECD came up with a performance review of the Danish environmental policy (OECD 1999). One of the recommendations was to continue the implementation of the national strategy for biological diversity introduced in 1995 and formulate a national action plan for nature protection, including quantitative targets and deadlines. We repeated the recommendation, and, whether this repetition was decisive or not, something happened.

The Ministry of Energy and Environment and the Ministry of Food, Agriculture and Fisheries jointly set up the so-called Wilhjelm-Commission (named after the chairman, the conservative former Minister for Industry), which from August 2000 to August 2001 elaborated the basis for a Danish action plan for biodiversity and nature management. In our judgement, our reports have obviously inspired the work of the Commission (Wilhjelmudvalget 2001).

The Council has not wanted to be a member of the Wilhjelm Commission because it could be a conflict in interests if the council wanted to discuss the results of the Commission. Instead, we have had a position as observers, which allowed us to take full and active part in the work of the Commission without being bound to any compromises or agreements at the end. This we felt was a special right and duty because most of the insight and expertise in this field was deeply involved in the Commission's work. Independent expertise hardly existed.

Furthermore, the publications have inspired the elaboration of a National Strategy for Sustainable Development, at least to some degree. However, the Council has been involved in conferences in the ministries, the Parliament, and between NGO's on this matter.

It is obvious that the Council's political influence lies in its relative freedom to choose the issues of its own reports, in selecting the authors, and of course also in selecting and formulating the recommendations at the end. On the other hand, in order to be heard, one needs to comply with the terms of the pre-given discourse. We therefore could not have chosen any issue, any authors or recommendations. The requirements concerning the mode of reporting, documentation, the references etc. was not totally open either. We tried to stay within the discourse and at same time be as open and transparent as possible concerning sources, values, and argumentation behind the issues.

A point where we may have violated the terms of the pre-given discourse was, however, where we recommended the issue of the regulation of accessibility to land to be evaluated and improved. We were criticised for dealing with matters in which we lacked the relevant expertise. In particular, we were criticised for not having provided any quantitative analysis upon which we could base this recommendation, only a qualitative, deductive argument based on the interpretation of the concept of sustainability. Admittedly, qualitative deductions are not what are usually expected from a natural scientific advisory council. They are expected to work on the basis of 'good quantitative empirical data'. On the other hand, if natural scientists are not allowed to interpret sustainability, who else should?

Part of the explanation of why we were criticised could also be that accessibility is a touchy issue because private ownership to land gives the landlords the right to prohibit access. However, another cause was certainly the old conflict between scientifically oriented 'preservation of nature' and public access. The one side fears that hordes of visitors will disturb the rare birds, the game, and the privacy. While the other side, argue for freedom to move as a democratic right, and a precondition for awareness raising and, in the long run, sufficient democratic support for nature and environmental protection.

The scientific front has not been as unified as in old days, but some scientists and scientifically oriented amateurs from Danish Society for Nature Conservation and from Bird Life made this into two words Denmark have been allied with the landlords and the hunters opposing improved public access. Others have been on 'our side' together with the majority of DN and the Open Air Council.

Taking up nature policy as a broad issue demonstrates how the Council's scientific expertise

has been increasingly politicalised. The larger number (ca.30) of different people we had to involve is an indicator on how diversified and hence expertised the fields of nature and nature protection have become. Finally, the concept of sustainability had come to us from abroad. It may be taken as a symbol of the daily increasing internationalisation of our field. This topic will receive greater attention in the next section.

### **4.3 Strategies for sustainable development**

The involvement in the debate on sustainable development has also given rise to further activities for the Council. Like the individual nations having signed the Rio-declaration, the EU has also signed, and all signatories have the obligation to elaborate a strategy for sustainable development. The Council has been involved in debates both at the national and at the EU level.

Sustainable development has become a common way of conceptualising the challenge for environmental politics, and due to the complexity of the matter, environmental politics is increasingly mediated through scientific presentations (Fischer and Hajer 1999). Therefore, we decided that one of the volumes in our trilogy should deal with this concept and its openness to interpretation. For this reason, more than a dozen experts write this report with a variety of backgrounds from natural scientists to sociologists, economists, legal scholars and philosophers.

Although they all agree that sustainable development involves thinking more than one generation ahead and, therefore, has something to do with intergenerational equity, most of them had their own interpretation of the concept. The Council itself learned from the report that sustainable development can be interpreted in many contradictory ways, and that the debate on sustainable development is not only a debate for natural scientists. Moreover, we also learned that the environmental crisis has to be found not in the environment but in the society.

One suggestion is that we can both have further growth and a restored environment at the same time. The mainstream economists prefer this. They tell us that nature and human capacity may be considered as capital along with economic capital. They also tell us that the one may substitute the other, and that we can continue with growth as long as we keep constant or enlarge the true savings in the society i.e. the sum of natural, human, and economic capital.

Confronted with the arguments that some crucial ecological processes are irreversible and not prone to any substitution they may admit the existence of so-called critical capital (Which natural scientists are then asked to define). Critical capital might be things like the ecosystem's capacity to perform ecological services like the circulation of oxygen, water and other substances essential for the functioning of life on earth.

Others suggest that the crisis is a cultural crisis, which is much more profound than any of the authorities, or the dominant debaters have envisaged. According to them sustainable development may be a part of the problem rather than the solution (Johansen 2000, Harste 2000). This deeper critique of modern society itself does not dominating the agenda. However, insofar as it continues to exist in subcultures in western society, and dominates the way of thinking in many other cultures, it has to be considered in a world where the management of nature and environment is becoming ever more internationalised year by year.

Although we think we are aware of this deeper critique of civilisation, we, in the Council, have enthusiastically engaged ourselves in the debate - on the side of sustainable development. In this role, we are an element of the ecological modernisation ourselves. In the national debate, we have argued for a stronger sustainability than the ruling economists do. In addition, at the EEAC-level, we have criticised the EU strategy for not being 'sufficiently green' (EEAC 2001).

In particular, concerning nature conservation and landscape management, we have argued that most of what we, people and our predecessors, want to protect is not substitutable. Although it is not essential for our survival i.e. critical capital, we want to protect a lot of what we call unique values. They are irreplaceable and we appreciate them so much that we want to keep them for our successors, for example all the burial mounds from the bronze age. In this way, we operate with three categories of values: Critical values, unique values and convertible values.

The whole exercise of elaborating the concept of sustainable development, and especially the discussion on values related to nature, has convinced us that the understanding of nature protection and sustainable development is deeply rooted in cultural values as much as in scientific facts. For this reason, the redirection of the present course of development onto a more sustainable path also needs to address specifically these cultural and value based aspects.

In this case, the Council's involvement in the interpretation of the concept of sustainable development, it has been demonstrated how nature conservation, the focus in the Councils field of expertise, cannot be understood properly if it is only seen within a natural scientific discourse. Other kinds of expertise, for example economics, are claiming to be no less relevant. Furthermore, for various reasons the issue of nature conservation has to be seen in a broader context, both politically and geographically, than was necessary one or two generations ago.

## 5. Concluding remarks

Advisory councils created by ministers should contribute to policy-making by formulating the problems in a way that institutions can deal with them, if not today then tomorrow. In addition, scientific advisory councils should do this by emphasising what science has to say about current issues.

This can be done in a more or less active way. The council may both sit and wait for questions to be raised by others, or it may actively look for issues to be put on the agenda. Councils may come close to the (no longer durable) ideal of an objective trustworthy board if they have a basis where the policy aspect is only implicit that permits them to choose the first possibility.

Councils, like ours, which actively want to raise issues themselves, and for whom the policy issues are stated explicitly in their constitutional basis, might be in a more difficult position by openly, and maybe also more honestly, admitting that they are part of a political setting. Although the setting superficially resembles a totally independent objective board, it is clear from the terms of reference and the interpretation we have given that the Nature Council is, first and foremost, an element of policy-making - an actor in the conservation discourse.

The Council has found that the best way of working is to be conscious and explicit about its role, and be open, transparent and argumentative. In this way, the 'raison d'être' for a so-called independent scientific advisory board may also survive in the 21st century.

One of the dangers of being designated as a board of scientific experts in an expert driven society is that the dialogue is confined to being between the politicians and their administration on the one side, and the experts on the other, leaving the broader public outside the debate. We have no clear answer to this challenge, because we are rather isolated from the ordinary public. Nevertheless, I have some comments: Firstly, there is the important function our Council has as a channel for civil servants to put forward their criticisms which might otherwise have been stopped by the formal hierarchy. Second, the Council has a similar role in relation to NGOs if scientifically argued claims from their side have not been heard as the press has deemed them untrustworthy. Thirdly, we try to reach a broader public by using the media and by listening to our Board of Representatives.

Nevertheless, I must admit that there are almost no possibilities for lay-people to influence the work of the Council directly. I think the best we can do is to be aware of the problems so that we can avoid unintentionally blocking the interests of the general public.

The role of the Council may be understood in the light of ecological modernisation. In his excellent introduction to ecological modernisation (Murphy 2000), five dimensions of the ecological modernisation literature are discussed. Let me end by taking a glance at the Nature Council in the light of each of these five dimensions.

### **5.1 Ecological modernisation as super industrialisation**

Is the transformation of production via the development and application of more sophisticated technologies, and with a limited amount of intervention, needed to reconcile the impacts of human activity with the environment?

We do think that transformation of production can potentially solve many environmental problems such as avoiding the most toxic substances in the environment. That is why we argue for sector integration of environmental considerations. However, generally speaking we fear that the majority of the benefits of the interventions will be eaten up by future growth.

### **5.2 Ecological modernisation as macro-economic restructuring**

The restructuring of national economies in their technological and sectoral composition for example by phasing out maladjusted technical systems may result in a decoupling of further economic growth from material consumption.

This is what the Council is arguing for when we, for example, suggest a restructuring of Danish pig production from conventional mass production of bulkware to qualified organic products. However, if the change consists of exporting the production with its environmental problems, there has been no real change.

### **5.3 Ecological modernisation as the forefront of policy-making**

This is where the Council feels at home. The setting of strict environmental targets, arguing for general sector integration, where, for example, the agricultural sector takes the responsibility for its own share of the environmental problems. Consideration should be paid to nature and the environment in all parts and all steps in the chain of production. Strategies and operational characteristics for all government departments are issues for the Council as well, whereas we are more sceptical of the type of economisation of ecology that the Economic Council stands for.

### **5.4 Ecological modernisation as cultural politics and discourse**

The Council is obviously a contributor to the story line that takes decreasing biodiversity and unsustainable development as common problems. Citing Hajer (1996) Murphy describes the cultural politics perspective of ecological modernisation as the perspective that explains “why certain aspects of reality are now singled out as ‘our common problems’ and wonders what sort of society is being created in the name of protecting ‘nature’.” (Hajer 1996 p.256) We have no intention to renounce that role. But we find it important to be aware of the complexity involved in the fact that environmental problems might be conflicts about the interpretation of physical and social phenomenon at same time as they are conflicts over what sort of action should be taken to a specific state or change in the environment itself.

### **5.5 Ecological modernisation as institutional reflexivity**

Ecological modernisation is an empirical phenomenon detectable in the transformation of institutions of modernity in the face of environmental problems. The reflexivity of these institutions causes them to reorganise their activity in attempts to overcome the problems (Murphy 2000). This is what the Council is aiming at – to bring an element of reflexivity into the debate that is often dominated by reductionist natural scientific and equally reductionist economic thinking. – Reflexivity into the government's thinking, or, better, the society's attempts to overcome the environmental crisis, or whatever else we might call the physical and social obstacles to developing an environment better suited to the aspirations of coming generations.

So, a conclusion that is worth reflecting upon: The Nature Council fits seemingly well into the process of ecological modernisation.

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### **Post scriptum**

A fourth case can now be added to the description of the Council. On 20th November 2001 there was a general election in Denmark. A new centre-right majority government replaced the former centre-left minority government. As a consequence a new policy agenda was introduced in many fields. One of them was to remove what was called all the arbiters of taste in all the unnecessary boards and councils. A list of 627 boards, councils, committees, centres and so forth was published in the newspapers (Jyllandsposten 2002). 103, the Nature Council being one of them, should be abolished, 102 should have their activities reduced, 88 should be scrutinised, and 333 would be maintained without any changes.

The response from the Nature Council was disobedience. In a press release 'The Nature Council refuse to be abolished', it was explained that nature and environment are of a kind that is not suited to being a sport of political change. With reference to the Council's long existence since 1917 and with reference to the preliminary knowledge of how the new government looked at nature policy it was stated that the Council now would be more necessary than ever before.

We had three reasons for doing so. Firstly, we had an urge to express our spontaneous frustrations. Secondly, we expected that an unexpected disobedience would improve our chances to be heard by the media and, who knows, may be contribute to a mobilisation of support that might change what we felt as an undue decision. Thirdly, and most important, we do want to continue, even though it will be without any funds, secretariat, and board of representatives or other formal status.

The four wise men have decided to continue at least as long as needed to organise a conference which can make a critical status report on the endeavours of the new government after one year. In addition, a new Wiseman's report is in process and the media's interest in the Council has not at all stopped.

Ministers still need advisory councils to contribute to policy-making, and the ruling government has just replaced one type of expert with another. Now economists are working in the office where the Council's secretariat formerly worked. They are employed in the new Institute of Environmental Assessment. It is lead by the controversial political scientist Bjørn Lomborg.

These circumstances reveal that it was more the taste, than the function, of arbiter that the government wanted to remove. It also revealed that the first attack on the Council in 1998,

mediated by the same newspaper, was not an isolated event but just one step in a long term strategy aimed at changing the content rather than the role of science in the environmental policy.

In this way the political role of scientifically objective independent councils has developed a step further than we were formerly used to in Denmark. This is underlined by the fact that the decision to establish the Institute of Environmental Assessment was forced through the parliament in a hurry and under strong criticism from the opposition. The opposition parties raised a formal proposal to reinstall the Nature Council. So by the next change of government we may see a change in advisory councils as well, as happens already in some other countries.

## References

- Agger,P. m.fl. (2000): Dansk naturpolitik – visioner og anbefalinger. Vismandsrapport 2000.
- Bach,H. m.fl.(eds.)(2001): Natur og Miljø 2001. Påvirkninger og tilstand. Danmarks Miljøundersøgelser. Faglig rapport fra DMU nr.385.
- EEAC (2001): 'Greening Sustainable Strategies – proposals by the European Environmental Advisory Councils (EEAC) for the EU Sustainable Development Strategy'. Presented and discussed at a conference in Stockholm on 23. February 2001. Hosted by the Swedish Environmental Advisory Council and the Focal Point for EEAC.
- Fischer,F.(2000): Citizens, Experts and Environment – the politics of local knowledge. Duke University.
- Fischer,F. and M.A.Hajer (eds.)(1999): Living with nature. Oxford Univ.Press.
- Friluftsrådet (1997): Friluftsliv for alle. Friluftspolitisk handlingsprogram.
- Hajer,M.(1995): The Politics of Environmental Discourse – Ecological Modernisation and the policy Process. Oxford, Calderon Press.
- Hajer,M.(1996): Ecological modernisation as cultural politics. In Lash,S. et al. 'Risk, Environment & Modernity – Towards a new ecology. Sage Publ.
- Harste,G.(2000): Risikosamfundets tidsbindinger. I Holten-Andersen (2000b) pp76-89
- Holten-Andersen,J. m.fl.(red.) (2000a): Dansk naturpolitik – viden og vurderinger. Temarapport 1:2000, Naturrådet.
- Holten-Andersen,J. m.fl. (red.) (2000b): Dansk naturpolitik – i bæredygtighedens perspektiv. Temarapport 2:2000, Naturrådet.
- Johansen,N.M.(2000): Bæredygtig udvikling som biomagtens tredje pol. I Holten-Andersen (2000b) pp 50-61.
- Jyllandsposten 2002 January 11:Th: Råd, nævn, udvalg og centre mv. der nedlægges eller reduceres. Sektion 1 s.6.
- Kærsgård,N.(1996): Økonomiske vismænd – politiserende økonomer eller objektive eksperter. Nationaløkonomisk Tidsskrift 134 (1996):113-128
- Madsen,F.K.(1979): Naturfredningssagens historie I Danmark. Odense Universitetsforlag.
- Murphy,K.J.(2000): Editorial. In Murphy (ed) Ecological Modernisation. Heoforum, Vol.31 Nu.1 p.1-8.
- Nordisk Ministerråd (2001): Bæredygtig udvikling – En ny kurs for Norden. TemaNord 2001:505
- OECD (1999): Environmental performance reviews: Denmark. OECD.
- Turner,G. and B.Wynne (1992): Risk communication. In Durant,J.(ed.): Biotechnology in public – a review of recent research. Science Museum for the European Federation of Biotechnology. Pp 109-141

Veld,R.J.(ed.): Willingly and Knowingly – the roles of knowledge about nature and the environment in policy processes. RMNO, Advisory Council for Research on Nature and the Environment. 2000, Lemma Publ. infodesk@lemma.nl

Wilhelmudvalget (2001): En rig natur i et rigt samfund. Wilhelmudvalget, Skov- og Naturstyrelsen.