

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

By Peder Agger<sup>1</sup>

### ***Abstract***

*The new Danish Nature Council is the latest successor of councils that have existed formally since 1917 and informally several years before. The roots and reconstruction of the Council is described and seen in the light of 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 where the Nature Council has been involved is described as well as the general way the Council has found of doing things: Being conscious and explicit about its role, and open, transparent and argumentative as one of the debaters within one (prevailing) discourse among others.*

### **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 mid 19th century, members of the natural historic faculty at University of Copenhagen became increasingly engaged in nature conservation. In 1833, the Danish Society for Natural History was founded, in 1840 the Danish Botanical Association and in 1893 the Danish Geological Association. In addition to the developments in the scientific disciplines themselves, this growing interest was also stimulated by the large changes and intensification in the agricultural production and land-use in agricultural landscapes.

The drainage of wetlands, cultivation of former heath land, spoiling of scenic landscapes and persecution of 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 organised NGO for nature conservation, 'Udvalget for Naturfredning' (The Committee for Nature Conservation) founded in 1905 on the initiative of the three aforementioned scientific associations<sup>2</sup>.

In the following years, the interest for nature, landscapes and especially access to the landscapes spread outside these scientific circles. The ongoing industrialisation of society had led to the situation, especially around the larger towns, where the upper class bought up the best land along the coasts. At same time as the growing population of workers and other urban inhabitants had a

---

<sup>1</sup> PA is professor and chair of Danish Nature Council, Fredriksborggade 15,3, DK-1360 Copenhagen.  
Fax 45+ 33 95 57 98; e-mail PA@RUC.DK

<sup>2</sup> Madsen, F.K. (1979): Naturfredningssagens historie i Danmark. Odense Universitetsforlag.

greater need for areas to spend their acquired free time and, over the years, increasing number of holidays.

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

In the beginning there was a rather pronounced contrast between the Committee at the university which predominantly wanted to preserve the countryside, and the Society which 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.<sup>3</sup> 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 which thus has existed since 1917. Of the two NGO's the Nature Society, little by little, took the lead, whereas the Committee for Nature Conservation became less and less active. It closed down in the late thirties. But even today the contrast between more exclusive scientific interests and the more public interest in access and out-door living exists.

Since then it has been obvious that policy concerning nature conservation in our little and densely populated country had to have both a natural scientific and a social dimension. Although they increasingly overlap and thus are difficult to keep separate. It has been generally accepted that the use of nature could be allowed as long as it doesn't lead to irreversible damages to essential nature values<sup>4</sup>.

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 hundreds of botanists, zoologists, geologists, ecologists, and other technical experts have been employed by the central and regional authorities. The central administration has even been equipped with large scientific research institutes such as the National Environmental Research Institute (NERI), Danish Geological Survey (DGS), and the Forest and Landscape Research Institute (FLRI) with hundreds of scientific experts.

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

Firstly, it was a wish among people in 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

---

<sup>3</sup> Madsen op.cit.

<sup>4</sup> 'Friluftsliv for alle' Friluftspolitisk handlingsprogram. Friluftsrådet 1997.

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 perform 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 a number of lawyers and headed by a judge appointed by the Minister.

Furthermore, more basic changes in knowledge- and policy processes in society have undoubtedly influenced the decision to keep the Nature Council alive. Environmental politics has become one of the most technologically and natural scientific driven fields. And the nature- and environmental protection agencies have developed extensive mechanisms for generating scientific information from internal expertise to external advisory boards<sup>5</sup>.

Tension between expert knowledge and democratic governance has become increasingly important for ministers to handle. I will come back to these, 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 at 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 in setting the sustainable development of nature and landscape at the agenda and ensure that these issues achieve the same importance in the public debate as e.g. 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 etc. 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

---

<sup>5</sup> Fischer,F(2000):Citizens, Experts and the Environment – the politics of local knowledge. Duke University Press.

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 Appeal 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 of all that might have an influence on nature and landscape and can be seen in the perspective of sustainable development. This mirrors the growing complexity in a society where nature conservation no longer can be seen in isolation from what else is going on.

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'<sup>6</sup>). It is stated 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 a period of three years. The Council nominates new candidates to be designated by the minister. The minister decides who should be the chairperson, with the grandiose title of 'Chief Nature-Wise-Man'.

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 proposals made by the organisations, and, for the scientists, made by 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 pronounced. 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 about any issue they may find appropriate;
- ❖ That it, on request, can (not should) answer specific question from the Minister.

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

---

<sup>6</sup> The present council consists of Professor Peder Agger (chair), Roskilde University, Ext. Professor Bent Aaby, Denmarks National Museum, Professor Anette Reenberg, Copenhagen University, and Ass. Professor Per Christensen, Aalborg University.

To support the wise men, and with reference to the Council, is a small secretariat established. The staff is a team consisting of a Director<sup>7</sup>, three other academic specialists, and a clerk. The secretariat should assist the Council in collecting and synthesising documentation, arranging meetings, editing reports etc.

A budget, of 5 million Danish Crowns (670.000 ECU) per year, should cover running costs for the secretariat, meetings, travel expenses, publications, and salaries including 80 to 100 thousand Dkr 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. Besides of the budget and the specific field of operation the only difference is that the Nature Council and its Board of Representatives are clearly separated. By 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.

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. e.g. 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 since the beginning of the nineteenth century this has only been unveiled or understood little by little. 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 been 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, the intensifying pressure on the environment has happened in many countries, partly due to the same causes, and therefore increasingly made nature conservation more internationalised.

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

### **3. Our interpretation of the TOR**

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

---

<sup>7</sup> John Holten-Andersen, former Head of Dept. System Analysis, NERI.

interests to take care of. In this arena, a council giving the highest explicit reference to scientific judgement may fill a gap which can be beneficial for the 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 what things really are - the scientific truth. 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 pointed out by Turner & Wynne<sup>8</sup>.

Instead of facts, we would be better off talking about knowledge seen as a social construction. And we 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.'<sup>9</sup>

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 by ministers are created as an integrated part of a policy-forming context, and at same time appealing to the vernacular perception of science as purely objective. Positivist science still dominate the public understanding. What is then their 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."<sup>10</sup>

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, length/size, direction, and timing to be picked up by others e.g. 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 do. The former chair of the Economic Council, have made similar considerations<sup>11</sup>. 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.

---

<sup>8</sup> 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.pp109-141.

<sup>9</sup> Veld,R.J.(ed.): Willing 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

<sup>10</sup> Hajer,M.(1995): The Politics of Environmental Discourse - Ecological Modernisation and the policy Process. Oxford, Calderon Press.

<sup>11</sup> Kærsgård,N.: Økonomiske vismænd - politiserende økonomer eller objektive eksperter. Nationaløkonomisk Tidsskrift 134 (1996):113-128

To our self-understanding we say that we think broader and more far-sighted than the other debaters at 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 ordinary people and politicians can understand. And 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 power’ 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 with over the past three years.

##### **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 economical benefit and profit. – This fits with Fischer’s observation: politicians must increasingly justify their decisions by appealing to analyses of their coalition experts<sup>12</sup>.

I, as the chair of the Nature Council, was launched 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 I could tell that the post had been unpaid, as also the job as wise-man is. It is not me, but my department that is paid for my absence.

There the debate on this particular case ended. But still the criticism of creating too many boards and committees in general, especially if they are staffed with allies, remains an issue for the coming elections. Too many councils may lead to over-application of scientific rationality. But still the open question is: What should be the alternative when still wider areas are transferred from politics to expertise? Isn’t it then better to have it formalised?

##### **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. Last year the choice was to be broad. We realised that the

---

<sup>12</sup> Fischer op cit.

Council does not have the resources needed to make a better status report of nature than that of the newest edition made by the Ministries research institutes. On the other hand, they are not able to make a broad and independent evaluation of the nature policy. Therefore, our choice was to do that.

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. The one named 'Danish nature policy - knowledge and evaluation', the other 'Danish nature policy - in the perspective of sustainability' and thirdly 'Danish Nature policy - visions and recommendations'.<sup>13</sup>

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 essay was 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, a year after, 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<sup>14</sup>. One of the recommendations was to continue the implementation of the national strategy for biological diversity from 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 sat up the so-called Wilhelm-Commission which started its work last August elaborating the basis for a Danish action plan for biodiversity and nature management. To our judgement, our reports have obviously inspired the work of the Commission.

The Council has not wanted to be a member of the Wilhelm Commission because it can be a conflict if the council later on want to discuss the results of the Commission. Instead we have a position as observers, which allows us to take fully and active part in the work of the Commission without being bound to any compromises or agreements at the end. This we feel as a special right and plight because most of what else exist in the country of insight and expertise in this field are deeply involved in the Commission's work. Independent expertise hardly exist.

Furthermore, the elaboration of a National Strategy for Sustainable Development which started shortly after the publication, has been inspired to some, although less convincing degree, by our report. But the Council has been involved in conferences both in the ministries, the Parliament, and among NGO's on this matter.

---

<sup>13</sup> They are all in Danish. Holten-Andersen, J. m.fl.(red.): Dansk naturpolitik – viden og vurderinger. Temarapport 1:2000 and Holten-Andersen, J. m.fl.(red.): Dansk naturpolitik – i bæredygtighedens perspektiv. Temarapport 2:2000; and Agger, P. m.fl.: Dansk naturpolitik – visioner og anbefalinger. Vismandsrapport:2000.

<sup>14</sup> OECD: Environmental performance reviews: Denmark. OECD 1999

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 couldn't have chosen any issue, any authors or recommendations. The requirements concerning the way of reporting, the way of documentation, the references etc. was not totally open either. We tried to stay within the discourse and at same time being 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 where we recommended the regulation of accessibility to be evaluated and improved. We were criticised for dealing with matters we didn't know about. In particular, we were criticised for not providing any quantitative analysis behind this recommendation, only a qualitative deductive argument based on the interpretation of the concept of sustainability. Admittedly, qualitative deductions are not what is usually expected from a natural-scientific advisory councils. They are expected to work on basis of 'good quantitative empirical data'. On the other hand: if natural scientist are not allowed to interpret sustainability - who else should have this right?

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. But another cause was certainly the old conflict between scientifically oriented preservation 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 scientist and scientifically oriented amateurs from DN and from Birdlife 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.

### **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 signed as well. 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 caused by the complexity of the matter, environmental politics is increasingly mediated through scientific presentations.<sup>15</sup> Therefore, we decided that one of the volumes in our trilogy should deal with this concept and its openness for interpretation. For this reason, this report is written by more than a dozen experts with a variety of backgrounds from natural scientists to sociologists, economists, legal scholars and philosophers.

Although they all agree that sustainable development is thinking more than one generation ahead

---

<sup>15</sup> Fischer and Hajer, op.cit.

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 both can have further growth and a restored environment at the same time. The main-stream 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 the nature- the human- and the 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 ecosystems capacity of performing ecological services like 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 dominating debaters have envisaged. According to them sustainable development may be a part of the problem rather than the solution<sup>16</sup>. This deeper critique of modern society itself is not dominating the agenda. But insofar it continuously exists in subcultures in western society, and is dominating the way of thinking in many other cultures. It has to be considered in a world where management of nature and environment is becoming more and more internationalised year by year.

Although we think we are aware of this deeper critique of civilisation, we, in the Council, have engaged us enthusiastically 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. And at the EEAC-level, we have criticised the EU-strategy for not being 'green enough'<sup>17</sup>.

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 isn't 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. In this way, we operate with three categories of values: Critical values, unique values and convertible values.

The whole exercise on elaborating the concept of sustainable development, and especially the discussion on values related to nature, has convinced us that the understanding of nature

---

<sup>16</sup> e.g. Niels Johansen and Gorm Harste in Holten-Andersen et.al.(red.): Naturpolitik i Bæredygtighedens perspektiv. Temarapport 2:2000 Naturrådet.

<sup>17</sup> '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. Focal Point for European Environmental Advisory Councils.

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 into a more sustainable path also needs to address specifically these cultural and value based aspects.

## 5. Concluding remarks

Advisory councils created by ministers should contribute to policy-making by creating the sort of problems that institutions can handle, if not today then tomorrow. In addition, scientific advisory councils should do this emphasising what science has to say about current issues.

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

Councils like ours who actively want to raise issues themselves, and for whom the policy-aspect is stated explicitly in their constitutional basis, might be in a more difficult position by openly, and maybe also more honestly, admitting that they are components in 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 first of all is an element of policy-making, - an actor in the conservation discourse.

The Council has found that the best way of doing things 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 survive also in the 21st century.

One of the dangers of being designated as a board of scientific experts 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. We have no clear answer to this challenge, because we are rather isolated from the ordinary public. But I have some comments: Firstly, I will mention the important function our Council has as a channel for criticism from civil servants which might otherwise have been stopped in the formal hierarchy. Second, the Council has a similar role in relation to NGO's if scientifically argued claims from their side have been stopped in the press for being untrustworthy. Thirdly, we try to reach a broader public by using the media and by listening to our Board of Representatives.

But I must admit that there are almost no possibilities for lay-people to influence the work of the Council. 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.

In the excellent introduction to ecological modernisation, which has been sent out before this conference<sup>18</sup>, five dimensions of ecological modernisation literature are discussed. Let me end my contribution by taking a glance at the Nature Council in the light of each of these five dimensions.

---

<sup>18</sup> Murphy, J.: Editorial: Ecological modernisation. *Geoforum* 31 (2000) 1-8. Pergamon

### **1. Ecological modernisation as super industrialisation:**

Is 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 potentially may 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. But generally we fear that the majority of the benefits of the interventions will be eaten up by future growth.

### **2. Ecological modernisation as macro-economic restructuring:**

Restructuring of national economies in their technological and sectoral composition e.g. 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 the Danish pig-production from conventional mass production of bulkware to qualified organic product. But if the change consists of exporting the production with its environmental problems, there have been no real change.

### **3. Ecological modernisation as the forefront of policy-making:**

That is where the Council find itself. Setting of strict environmental targets, general sector integration, and with strategies and operational characteristics of all government departments, are all issues for the Council. Whereas we are more reluctant to the type of economisation of ecology that the Economic Council stands for.

### **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. We have no intention to denounce that role. But we find it important to be aware of the complexity that environmental conflicts 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 certain state or change in the environment itself.

### **5. Ecological modernisation as institutional reflexivity:**

That is what we are aiming at - to bring an element of reflexivity in to the debate that often is dominated by reductionist natural scientific and equally reductionist economic thinking. - Reflexivity into the governments, or better the society's attempts to overcome the environmental crisis, or whatever else we might call the physical and social obstacles for an environment better suited for the aspirations of coming generations.

So a conclusion which is worth to reflect upon: The Nature Council fits seemingly well into the process of ecological modernisation.

**Acknowledgement**

Thanks to Anette Reenberg, John Holten-Andersen and Kurt Aagaard Nielsen for giving response to a former draft of this paper.