



## **Sectoral and Cross-Sectoral Integration of Biodiversity in Norway**

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## **1. Introduction**

Norway reported<sup>1</sup> that the Government has established that all authorities, industries, and other relevant players shall contribute to the work of attaining sustainable use and protection of biological diversity. The Ministries have the responsibility to integrate biodiversity considerations in their management. They also have the responsibility to promote implementation of the national targets for biodiversity in subordinate agencies, sectoral industries, and interest organizations in their areas of responsibility. Below a selection of the sectors strategies and actions for the integration of environment/biodiversity are presented. The information is collected from Proposition to the Parliament 1 (2008 – 2009) under the respective Ministries, and from contributions received directly from the Ministries.

## **2. Ministry of Children and Equality (BLD)**

Both volume of consumption and patterns of consumption by society have effects on the environment, including the climate. Environment, resource and climate loads from consumption in Norway are higher than what would constitute a sustainable level on a global scale. The Government's strategy for sustainable development underlines the need to alter production and consumption patterns. The Strategy attempts to reduce environmental loads by altering the pattern of consumption towards the normal consumption pattern representing sustainable practice. An altered consumption pattern and a reduced total resource use will demand changes in attitudes, behaviour, and lifestyle, as well as in technology and economic policies.

In 2007 the Ministry, together with the Ministry of the Environment and the Agriculture and Food Ministry, gave economic support to information work carried out by the Environment Mark Foundation (Stiftelsen miljømerking), Debio and Fairtrade/Max Havelaar. The goal is to make the environment mark scheme better known to the public.

The Ministry also gave support in 2007 to further development and marketing of the website [etiskforbruk.no](http://etiskforbruk.no), (ethical consumption Norway), which will be a tool to assist interested people to choose products according to ethical and environmental criteria. The website is operated by Grønn Hverdag (Green Everyday) and Etisk forbrukernettverk (the Ethical Consumption Network).

## **3. Ministry of Finance (FIN)**

Sustainable development

The Ministry of Finance coordinates the Government's work on sustainable development. Individual Ministries have responsibility for implementation in their areas.

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<sup>1</sup> Norway (2009). Fourth National Report, the Royal Ministry of Environment, April 2009, 95 pp.

Work on sustainable development was an important theme in the 2008 National Budget, in which the Government presented a national strategy for sustainable development. The strategy is a result of a broad process to which Norwegian organizations have contributed actively at various stages.

The 2008 National Budget also put forward an updated and more policy-relevant set of indicators for sustainable development. Statistics Norway has an important role in furthering work such indicators and presenting annual development through indicators with associated analyses. The work of implementing the national strategy for sustainable development will be reported annually in the national budget.

#### Intersectoral environmental tools

The Ministry of Finance has the overall responsibility for the introduction of levies into environmental policy. Charges comprise, together with tradable emissions quotas and direct regulation, the most practical tool which the can make use of to reduce environmental problems. Correctly structured levies provide an incentive to reduce emissions in the most economic fashion, and ensure that the polluter pays. Considerable emphasis will therefore be made on environmental and energy charges.

On contract from FIN, the consultancy SWECO carried out a survey of national grant schemes with environmentally damaging consequences. The report was delivered to the Finance Minister on 22nd April 2008. Evaluation included whether such schemes contributed to reductions in biological diversity and natural areas. The report finds that certain grant schemes under the Ministry of the Environment, Agriculture and Food Ministry, Fisheries and Coast Ministry, Industry and Trade Ministry, Transport Ministry, Oil and Energy Ministry, and Local Government and Regional Ministry can be considered to have negative environmental consequences. Grants for supporting transport; primary industry; and county and industrial development are particularly significant in this respect.

#### **4. Ministry of Fisheries and Coastal Affairs (FKD)**

With the aim of improving fisheries legislation as a tool for caring for the marine natural environment and marine biological diversity, the Management of Wild Marine Resources Act (Sea Resource Act) was enacted on 6th June 2008, and came into force on 1st January 2009. The act covers all wild living marine resources and related genetic material. The purpose of the act is to secure sustainable and socio-economically profitable management of wild marine resources and related genetic material and to contribute to securing employment and settlement in coastal communities. A central element in the Act is that management now has a duty to regularly assess the management measures necessary to ensure sustainable management.

Biological diversity is one of several environmental values that are affected by the allocation of licenses and localities for aquaculture. The Aquaculture Act requires that activities throughout the lifetime of an operation shall be environmentally defensible. By environmentally defensible it is meant that the operation is to be defensible both with regard to pollution and to ecological effects, including effects on biological diversity. This implies that activities must not at any time have significant negative

consequences on the surrounding environment and wild organisms. In addition, the Act forbids the release of non-native organisms.

Processes where regard for biological diversity has been integrated include among others the Ministry of Fisheries and Coastal Affairs' (i.e. the Government's) plan for sustainable future-oriented cod farming. An important area of effort is to hinder spawning in fish cages, so that genetic mixing between farmed cod and wild cod can be avoided. A requirement to ensure this will come into force from 2015.

Establishing marine protected areas (MPAs) is one important instrument in the Ministry's effort for securing biodiversity. Other important elements of the Norwegian fisheries management regime are the discard ban, the obligation for fishers to leave fishing areas when the intermixture of juveniles exceed certain limits, and the Barents Sea monitoring program for real time closures of such areas. More than 60 closures, amendments and re-openings are undertaken annually in a successful effort to protect juvenile fish.

Another example of the fishery authorities' work is that against the escape of farmed aquacultural organisms. Such escapes are the greatest environmental challenge the aquaculture industry faces. These challenges are related to genetics, ecology, and spread of disease. Work includes a focus on controls to secure that existing measures are complied with, the improvement of these and the development of new measures. The work of the Fishery Directorate's action plan against escaped farmed fish – the "No Escape Vision (Visjon nullflukt)" has a very high priority. The plan consists of 30 study and action points that will be carried out in the course of the current year. The action plan comprises work on better regulation and better management tools, a more goal-oriented and risk based inspection effort, and revision of technical standards.

Fisheries management authorities participate actively in the UNs general meetings and have contributed actively to setting a focus on the challenges of overfishing, black fishing (IUU), discards of fish, and the connection between IUU fishing and other organised international crime.

## **5. Ministry of Defence (FD)**

Environmental and social responsibility shall carry considerable weight in all activities in the defence sectors, and adjustments will be made to provide for a more careful use of the environment. Further development and improvement of the environment leadership system in 2009, including third party certification of some activities, will be central elements for integrating regard for the environment into all planning and decision making processes.

The defence sector will make environmental information accessible both for its own activities and to the public. Systematic registration and use of environmental data will form the basis for inspection of activities and for initiating appropriate improvement measures. Defence has a long and good experience of deploying environmental protection officers, who participate in planning and carrying out exercises in Norway; this experience is to be extended to operations abroad.

As a consequence of altered requirements, many firing ranges and exercise areas have been closed. Considerable manpower effort in removing explosives, and costs related to the environmental clean-up of these areas must be expected for a considerable period ahead. The return of Hjerkin firing range to civil use is being carried forward; the work of removing infrastructure is being scaled up in 2009 according to plan.

Participation in the interministerial national programme for mapping and monitoring of biological diversity (2007–2010) will be carried forward in 2009.

## **6. Ministry of Health and Care Services (HOD)**

The health and care services sector's goal is to achieve a safer and more health-orientated environment. Important measures are to clarify the environmental factors in public occupational health, support local county environmentally orientated health protection, including good enforcement of regulations, contribute to preventing injuries and accidents, prevent poisoning, prevent asthma, allergies and indoor climate illnesses, and improve children's environment and health.

The Ministry of Health and Care Services, in its business meetings of January 2008, asked regional health enterprises to implement the Government's Action Plan 2007–2010 through environmental and societal responsibility in procurement decisions. The Ministry has established that enterprises should bring in competence and contribute to developing new competence through procurement, in order to identify and choose solutions that have a low negative effect on the environment. The Ministry has asked regional health enterprises to cooperate in order to carry out national-level work, lead by Health West RHF, to survey established, transferable environmental measures in the sector, and prepare possible new climate measures within the specialist health service.

## **7. Ministry of Justice and the Police (JPD)**

Work on environmental protection within the Ministry of Justice and Police's area of responsibility mainly concerns legislation, combating crime, preventative work on societal safety and emergency preparedness, and coordination of Government's policy in polar areas. The Ministry aims to ensure that individual subordinate agencies and sectors will use environmentally friendly products and technology.

The largest environmental challenge for the police services is related to fighting illegal, unreported, and unregulated commercial fishing (UUU-fishing) in the Barents Sea, escaped farmed fish, the working environment, art and cultural monuments, and pollution.

The Police Service has a central role in the work of reducing environmental crime. This is performed through preventive measures, integration of surveillance activities carried out under police authority, and through rapid investigation and indictment of breaches of environmental legislation.

Økokrim (Norwegian National Authority for Investigation and Prosecution of Economic and Environmental Crime) is the police and prosecution authority's foremost competence centre in the environmental area and has a special responsibility for environmental crime. Økokrim has an important function both through investigation and indictments in especially serious and principal cases and as a

guide and assistance organ for the police counties. Environmental crimes are investigated by a special environment team in Økokrim and through special environment coordinators in the police counties. Økokrim participates in international police cooperation related to combating environmental crime, through Interpol, Europol and the Baltic Sea Task Force.

Interdisciplinary cooperation, competence and good technical environments in the police counties are important for the success of the police in the fighting of environmental crime. The Provincial Environment Forum has an important function in this connection. At a central level, cooperation is strengthened by the Central Environment Forum, under the leadership of the Police Directorate, now comprising 14 different inspection and supervision agencies.

## **8. Ministry of Local Government and Regional Development (KRD)**

The Ministry of Local Government and Regional Development carried out various environment-related measures in 2009, mainly in the areas of housing, living environments and construction. The Ministry's related activities in the Housing Bank and National office of Building Technology and Administration are important role players in the implementation of the Government's housing and building policies. Prioritized areas of effort include reduced energy requirements, energy adjustment, more environmentally friendly material use in the building industry, and waste management.

Green Energy Municipalities (Grønne energikommuner) is a cooperation project between the Ministry of Local Government and Regional Development, Ministry of the Environment, Oil and Energy Ministry and KS. Twenty-two local municipalities were selected for the project, and are connected in five networks. The goal of Green Energy Municipalities is for Norwegian local municipalities to invest in energy efficiency measures, bioenergy, and to reduce climate gas emissions. The local municipalities chosen for the project shall, through technical, administrative and economic support in their own networks lift energy planning to a strategic level in the local municipalities. Experience from the networks will be an inspiration and learning resource for local municipalities throughout the country through learning networks in Vigorous Counties (Livskraftige kommuner). To stimulate local anchoring and support locally initiated projects, a one-off grant of 1.25 million NOK Has been made available to the networks. Use of the money is at the discretion of the local network, so long as it is in accordance with the programmes purpose.

All participating local counties are now working towards or have completed climate and energy plans. The programme will continue through 2010.

## **9. Ministry of Culture and Church Affairs (KKD)**

The Ministry of Culture and Church Affairs' environmental work takes place through the Norwegian church, museums, grants to sports halls and construction for culture and sport, and the aesthetic quality of the surroundings.

The museums' object based conservation and interpretation work contributes to spreading knowledge about and experience of connections and changes in the natural and culture based environments

around us. Many museums manage cultural monuments in the form of buildings and factories, and many cultural monuments themselves are used as museums. In the Ministry of Culture and Church Affairs budget, an operating grant is now given directly to about 100 museums in the national museum network. The Norwegian Culture Council's technical committee for protection of culture gives grants to museums and culture conservation measures.

Conservation and interpretation of cultural monuments has been a central part of the museums' activities in 2007. In addition many museums have produced projects and exhibitions related to other aspects of environmental protection, for example the Norwegian Folkemuseum's exhibits "Nothing disappears – use, consumption, and recycling" and "Hot Spot" and the Norwegian Technical Museum's exhibition "Climate X", on how technological development has in it the seeds of modern climate change. The museum's engagement in natural science topics has contributed to strengthening interest in environmental questions and ecology.

#### **10. Ministry of Education and Research (KD)**

The Ministry of Education and Research works for a good environmental profile within the various sectoral Ministries and subordinate activities that it contributes in shaping.

In kindergartens and schools transmission of knowledge and good attitudes towards the environment are an integrated part of the pedagogic task. Welfare and teaching in kindergarten shall promote human equality, equality of opportunity, tolerance, health and understanding of sustainable development. Included in this is love of nature, and understanding of interactions in nature and between people and nature. Nature, environment and technical science are a part of the teaching curriculum in kindergartens.

In school education, environmental studies are integrated into the current teaching plan. Teaching shall give the greatest possible overall knowledge and understanding, and develop the ability and desire to work for a society in harmony with the natural resource base. The period 2005–14 is the UN decade for teaching for sustainable development, and the Directorate of Education has developed a national strategy for the period 2006–10 as a central part of the environmental policy effort within primary education in the coming years.

Universities and colleges are also important institutions for knowledge transmission, but also for research on the environment. Environmentally oriented research is important for obtaining a good understanding of the environment and how the environment is developing; this is an important precondition for good and reasonable development of environmental policy. In Parliamentary Report no. 20 (2004–2005) The desire to research, energy and the environment are selected as one of five thematic areas of effort for Norwegian research in the coming years. The Ministry of Education and Research also supports climate research, e.g. through grants from the fund for research and innovation to the programme NORCLIMATE managed by the Norwegian Research Council. In addition the Ministry finances research inside the EUs framework programme; a large proportion is environment related. The Ministry has a focus on following up the climate report and climate agreement as regards research.

Another important measure is the Ministry's financing of Norwegian membership in the Global Biodiversity Information Facility (GBIF), which is an international initiative to secure electronic access to biodata for researchers and other interested parties throughout the world. The Norwegian Research Council represents Norway in GBIF.

## **11. Ministry of Agriculture and Food (LMD)**

In order to systematize and strengthen environmental work, the Ministry of Agriculture and Food (LMD) has developed a strategy and action plan for environmental challenges that the agricultural and food sector will be faced with. The Ministry of Agriculture and Food's Environment Strategy 2008 – 2015 will contribute to attaining the national environment goals and is organized in accordance with the result areas in Parliamentary Report no. 26 (2006-2007), The Government's Environmental policy and Environmental State of the Nation. The Ministry's ability to uphold and better integrate regard for biological diversity in its activities is central to the strategy. Furthermore, the strategy invites cooperation and dialogue centrally and regionally between industry, local counties, interest organisations, and the state to secure integration of regard for the environment in a goal-oriented and cost effective way. This is developed in a number of strategy documents on selected themes, which also give an impression of how regard for biological diversity can be integrated into the agricultural sector. A strategy for research and research-based innovation 2007 – 2012 elaborates on the knowledge requirements of themes in the environment strategy and has environment and resource management as one of six prioritised research areas. Development of environmentally friendly production and environmentally friendly products are stressed in three of six strategies for food policy that are presented in the strategy Taste of Norway 2008-2010.

LMD wishes to increase the agriculture sectors effort in climate work both to reduce Norwegian emissions of climate gases and to develop strategies for adaptation to a changed climate. The Government will therefore produce a Parliamentary Report in 2009 on agricultural and food policy and climate challenges. Increased investment in bioenergy with a basis in forestry raw materials will be one of the themes. The Ministry has established a policy maintaining that increased extraction of raw materials for bioenergy from forests will follow the same principles for sustainability as other activities. The Ministry has also asked the Norwegian Research Council to increase effort aimed at increasing new knowledge in this field.

Research related to biological diversity has been strengthened, especially because of the increased extraction of biomass from forests for bioenergy purposes. Research in the field of sustainable use and protection of the nations protected areas is also highly prioritised. The same applies to agricultures effects on watersheds and other environments. The framework for investment in agriculture and biological diversity is found in the Ministry of Agriculture and Foods environment strategy and strategy for research and research-based innovation.

The intersectoral national strategy and measures against damaging exotic species contains a range of measures within the agricultural sectors area of responsibility, e.g. work to hinder introduction and



spread of plant pests. From 2009 Norway has a new regulation requiring importers of wood packaging to take measures to prevent the introduction of serious forestry pests.

The Ministry of Agriculture and Foods is a participant in a range of international processes where regard for biological diversity is central. The Ministry is actively following up international work under, among others, the FAO commission for genetic resources, the UN convention on biological diversity and the international treaty for plant genetic resources for food and agriculture (ITPGRFA). In the UN's forestry policy forum (UNFF) the Ministry works for a more binding cooperation between countries to care for and better manage the world's forests.

## **12. Ministry of Trade and Industry (NHD)**

The Government will motivate industry to be at the forefront of implementing environmental measures to secure a sustainable future for the industry. The Ministry's goal is to lead an active innovations policy to advance development and commercialization of environmentally friendly technologies and services. This will contribute to an improved environment and lay the foundation for competitive superiority for Norwegian industry. A range of industries in Norway have their basis in a clean environment, e.g. tourism, angling and commercial fisheries, and forestry. The tourism industry is to a great degree based on attractive natural and environmental qualities.

Three central goals for environmental work are to: 1) implement policy for resource use nationally and internationally that can unite regard for the environment, regard for trade policy, and regard for industry; 2) contribute to developing and bringing into use environmentally friendly technology and environmentally friendly goods and services, and 3) work actively within the UN's shipping organisation IMO to prevent and reduce environmental pollution from ships.

### **Development and use of environmentally friendly technology, goods, and services**

Through dialogue with Innovation Norway, emphasis is placed on the environment and energy. Innovation Norway has in recent years committed considerable funds to environmental projects. Most environmentally oriented measures Innovation Norway has been involved with in recent years have been projects where the development or implementation of an environmental product or service has been central. Innovation Norway has considerable network activities that are environmentally relevant, and the company cooperates with many existing company networks in the field of environmental technology.

## **13. Ministry of Petroleum and Energy (OED)**

The Government's vision is that Norway shall be an environment and climate friendly energy nation, and take the lead in the development of environmentally friendly energy. Norway shall be at the forefront in the use of new technology that ensures a high degree of resource exploitation with the least possible climate gas and environmental emissions.

A challenge is to unite Norway's role as a petroleum producer and exporter with the country's ambition to be a leader in environment and climate policy. Energy and climate are now integrated to a greater

degree on the international agenda. A major mission is to develop new clean energy and to produce fossil fuels without it leading to large CO<sub>2</sub> emissions and thereby contributing to climate change. Norway is working for the cleanest possible production of energy, both in the production of renewable and fossil energy sources, together with technological development to contribute to reductions in global climate gas emissions.

Regard for the environment has been a feature of Norwegian energy and petroleum production for many years. The strict demands which have been set for activity have led to the fact that Norway has today an environmental friendly energy and petroleum activity which is in a good position to meet steadily stricter demands for environmentally friendly activity.

The Government continues to prioritize reducing CO<sub>2</sub> emissions from the Norwegian sea basin. From 1st January 2008 the Norwegian quota system for climate gases was extended to cover almost 40 % of Norway's emissions, and all of the Norwegian petroleum installations are now included in the quota system. At the same time, the Norwegian quota system has joined the EU quota system.

It is important to ensure that the expansion of wind and water power happens without negative effects on natural diversity, outdoor recreation, or significant landscapes. Sea-based production of renewable energy is interesting in the long-term, but it will require a considerable effort in, among other things, research, development and demonstration of new technologies.

#### **14. Ministry of Transport and Communications (SD)**

Transport infrastructure and traffic affect the natural and cultural environment both through direct consumption of land, through barrier effects, and through reduced use and quality of experience for areas near transport infrastructure.

Regard for the natural and cultural environment will be better integrated in planning, construction, and running of transport infrastructure. Transport authorities will seek to avoid encroachment on protected natural areas, larger connected natural areas without heavier encroachments, vulnerable natural habitats, and valuable cultural areas.

The Ministry of Transport and Communications and transport agencies participate in an intradepartmental cooperation to survey and monitor biological diversity. Transport agencies will further this work by building up and maintaining a broad environmental science competence. Furthermore, knowledge on the effects of encroachments and of amelioration measures will be improved through further investment in research and development, including stepping up of pre- and post-intervention investigations.

In 2008-2009 the National Roads Authority is carrying out a programme of post-implementation investigations of wildlife measures along the road network. These will focus specifically on the evaluation of measures that might reduce the number of wildlife-related accidents and measures that reduce the barrier effects which roads have, and on measures aimed at red deer.

