



The picture shows mountains and fjords on the coastline of the county Nordland, in the northern part of Norway.

Drawing up The Nature Diversity Act has been the most demanding and interesting work I have ever done as a vice-minister.

And the act is, without doubt, the most important law on nature ever made in Norway. For the first time we have an act concerning both sustainable use and conservation of nature, that addresses all sectors of society. Earlier we had one law concerning protection and other laws concerning different use of nature, but not a law that saw sustainable use and conservation in context.

The Norwegian Nature Diversity Act entered into force on the 1st of July 2009. Although adopted only a year ago, we were proud when The Nature Diversity Act was one out of six laws nominated for the Future Policy Award 2010.

As you all probably know, we congratulated Costa Rica's biodiversity law from 1998 as the gold medal winner on Monday.

History of Norwegian conservation legislation



The 1910 Act: A protected oak



The 1954 Act: National parks



The 1970 Act: Conservation of nature



The 2009 Act: Sustainable use and conservation of nature

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Protection of nature and the environmental movements have at least two historical roots in Norway. One is the principal of sustainable use, and goes back to the old farming society, that states that you shall bring the farm onto the next generation in better conditions than you inherited from your parents. The other goes back to the early conservation movements, that saw the splendour and the intrinsic value of nature.

In 1910 Norway got its first nature conservation act. It gave the authorities the possibility to protect species and small areas important for biodiversity.

In 1954 Norway got a new nature conservation act. Now we got the possibilities to establish national parks. Norway was not a frontrunner in Europe. Sweden got its first national parks already in 1909, while Norway's first national park Rondane, was first established in 1962. In 1970 I was born...

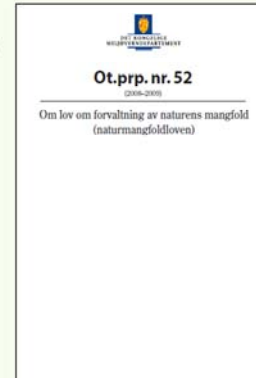
... and then Norway, of course, got a new nature conservation act. This law was very modern for its time. It had scope and different categories of protection of nature.

So finally in 2009, the Norwegian Parliament passed the Nature Diversity Act, that came into force the same year. Different from the previous acts, the nature diversity act is about both sustainable use and conservation, and unite the two traditions in environmental work in Norway.

The Nature Diversity Act

An Act consisting of 10 chapters and 77 sections

Chapter I	Purpose and scope
Chapter II	General provisions on sustainable use
Chapter III	Species management
Chapter IV	Alien organisms
Chapter V	Protected areas
Chapter VI	Selected habitat types
Chapter VII	Access to genetic material
Chapter VIII	Competent authority under the Act, supervision, etc
Chapter IX	Enforcement and sanctions
Chapter X	Final provisions

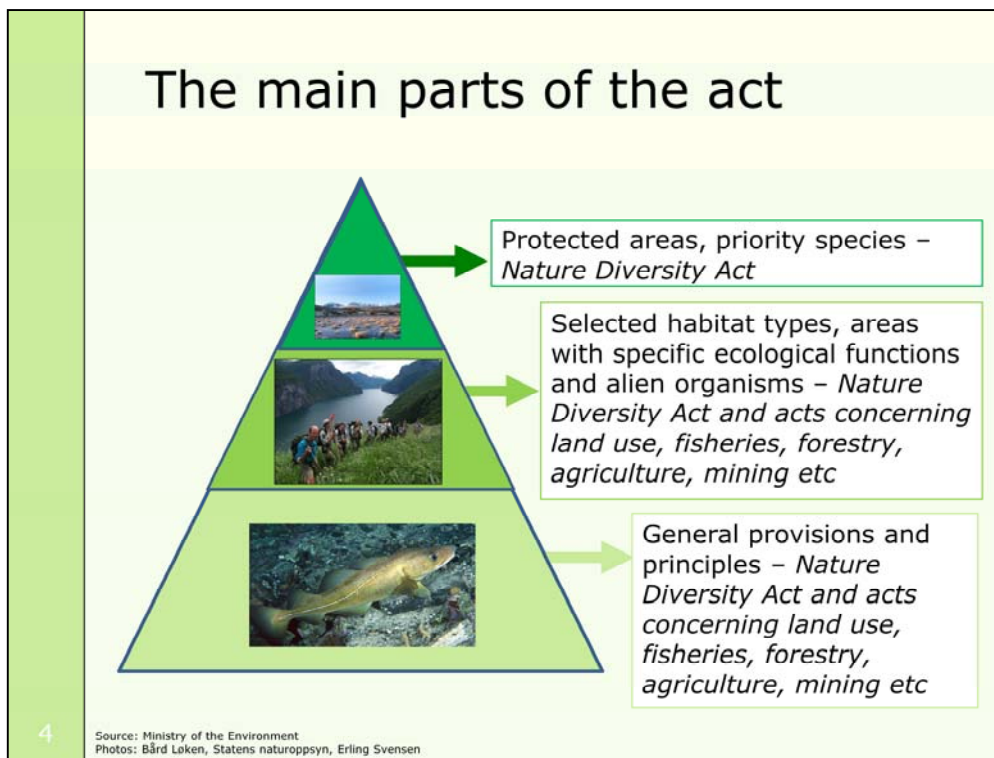


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The Nature Diversity Act is a comprehensive act, consisting of 10 chapters and 77 sections.

The main challenge in drawing up the act, was to decide whether the act's purpose, management objectives, key principles and regulations should **be amended in at least 36 laws** concerning land use, **or should be gathered in one act**. Both the Norwegian government and the Norwegian parliament chose to gather them in one act; The Nature Diversity Act. It was also decided to let it apply for all sectors of society that have activities that affect nature, for example planning and building, fisheries, road construction, oil activity and forestry.

The new act has a wide scope. Just to give you a picture; the old Nature Conservation Act is replaced by one single chapter in the Nature Diversity Act, chapter V. The nine other chapters are mainly about sustainable use.



The act can be divided into three main parts. The most valuable and threatened nature is at **the top of the pyramid**. This includes protected areas and priority species. Such nature is to be managed by The Nature Diversity Act alone.

As a middle-bracket there will be provisions for nature that need special attention. This diversity will be managed through sustainable use. Examples here are so-called selected habitat types, provisions for areas with specific ecological functions and provisions for invasive alien species. The management of this nature will be based on a combination between the Nature Diversity Act and acts concerning land use, fisheries, forestry, agriculture, mining etc, that affect nature.

For all development projects and land use that affects nature, the act's purpose, management objectives, knowledge based management and key principles for nature management, forms the act's **"foundation wall"**. The management will be based on a combination between the Nature Diversity Act and acts concerning land use.



Let us start with the tools in the foundation wall, which includes the purpose of the act. The first aspect is that biodiversity is an **intrinsic value**. Nature has a value "in itself". We have an ethical responsibility to take care of nature.

The second aspect is that biodiversity gives us **experiences and recreation**. Experience of nature means a lot to the quality of life for most people, whether you are in your neighborhood or in the wilderness.

The third aspect is that biodiversity **is the world's most important resource**. Nature gives us a lot of things that human life on earth is totally dependent on. Food, water, trees, fiber, fuel, and a lot of other ecosystem services.

Management objectives

To maintain the diversity of habitat types within their natural range



To maintain species and their genetic diversity for the long term and to ensure that species occur in viable populations in their natural range



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Together with the purpose of the act, the act also has **management objectives for habitat types and species**. These objectives are **more concrete and more binding** than the purpose of the act.

The management objectives apply to all sectors of society.

The management objective for **habitat types** is to maintain the diversity of habitat types within their natural range.

The management objective for **species** is to maintain species and their genetic diversity for the long term, and to ensure that species occur in viable populations in their natural range. In other words to halt the loss of biodiversity. The objectives makes one thing perfectly clear: one shall not make a decision that allows a specie or a habitat type to become extinct.

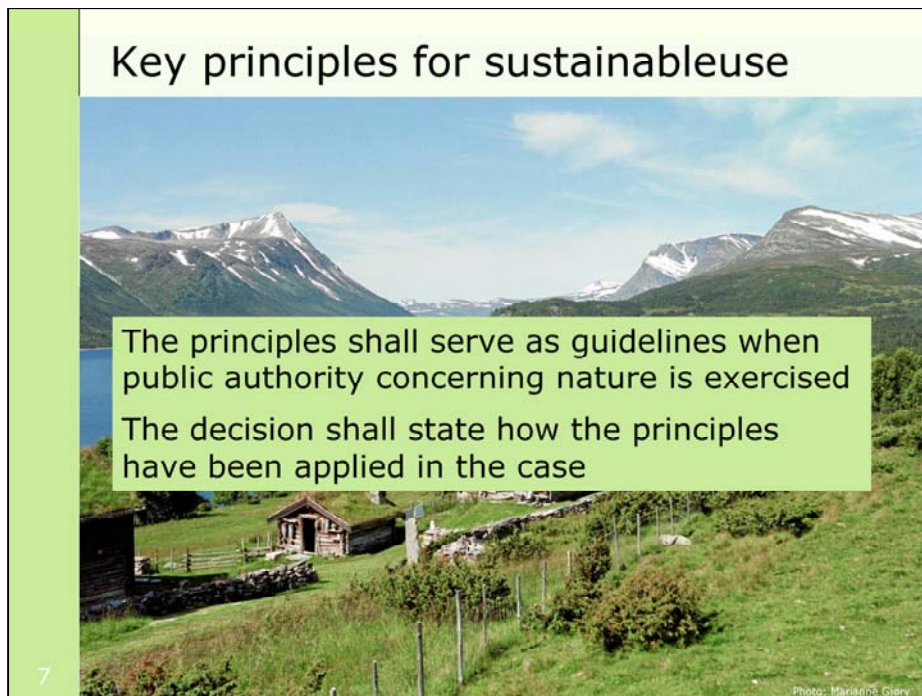


Photo: Trollheimen nature conservation area in Sør-Trøndelag.

For the first time Norway has adopted key principles for management of biodiversity as part of a cross sectoral act in Norway. Although they have appeared earlier in many political documents and international conventions.

The principles shall be used as guidelines whenever environmental authorities, municipalities or sector authorities make decisions that concerns nature. They must use the principles when they hit individual decisions or issue regulations.

As a part of the decision the authorities shall state how the principles have been applied in the present case.

Knowledge-based management

One of the basic fundamentals of the Act
Decisions shall be based on:
Scientific knowledge
Knowledge based on experience

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Photo: Marianne Gjerv

Knowledge is one of the basic fundamentals of the act and also one of the key principles.

This means that decisions that affect biodiversity, shall be based on **scientific knowledge**.

Furthermore, the authorities shall also take into consideration traditional knowledge.

In my opinion good decisions are been made **when scientific meet traditional knowledge in mutual respect**. I strongly believe that if you can't agree on facts and numbers, it is almost impossible to agree on appropriate measures. This is the main reason why Norway actively supported the establishment of an Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES).

The precautionary principle

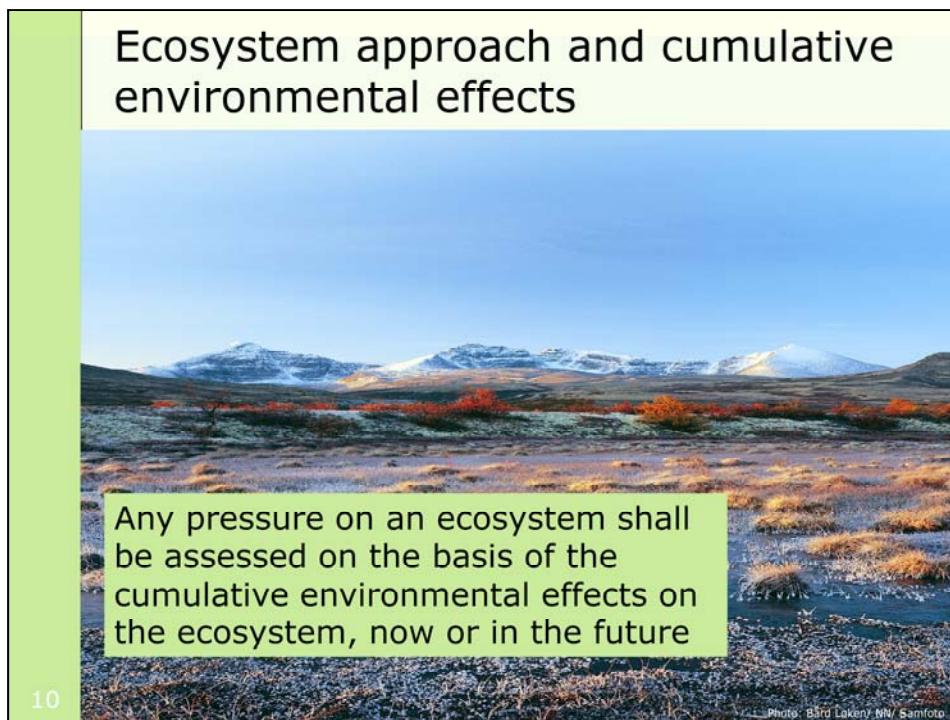


When a decision is made in absence of adequate information, the aim shall be to avoid significant damage to diversity

The plant Marisko in Junkerdalsura nature reserve.

The precautionary principle gives nature the benefit of doubt. Facing complex environmental issues, such as climate change and loss of biodiversity, the precautionary principle gives us important guidance. This principle is of fundamental importance when we have a lack of knowledge.

The principle states that the authorities shall not make decisions when we do not know the consequences for biodiversity and where there is a risk of serious damage to biodiversity.

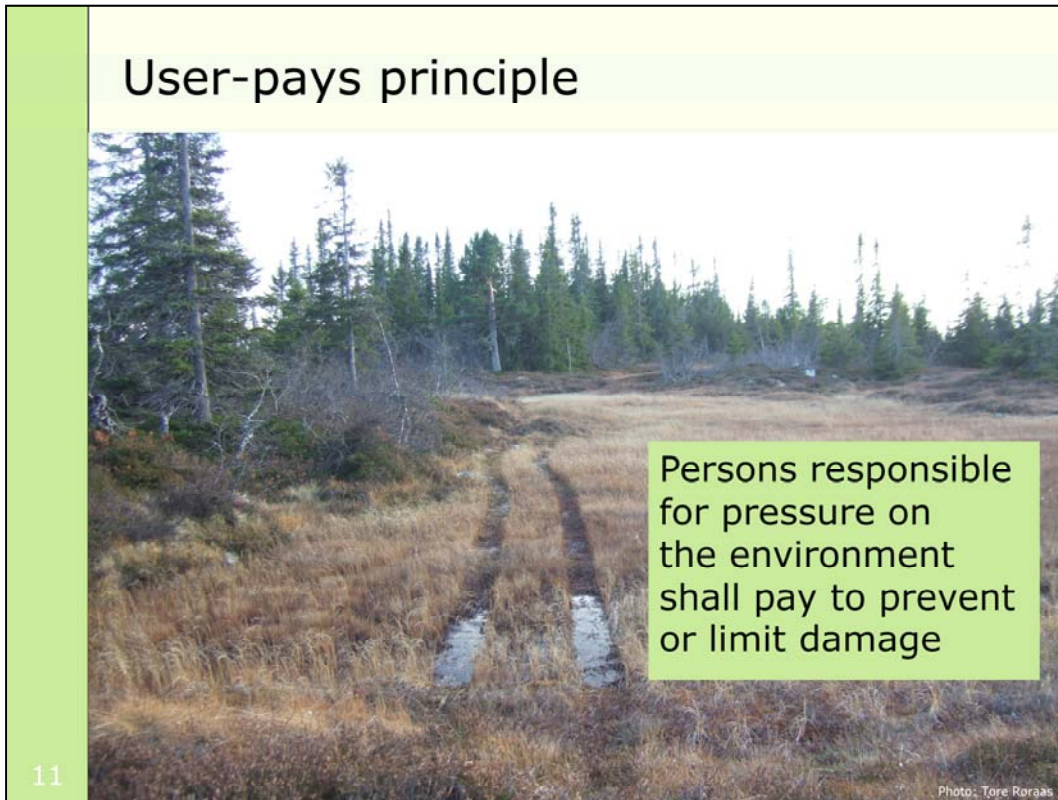


This principle says that any pressure on an ecosystem shall be assessed on the basis of the cumulative environmental effects on the ecosystem, now or in the future.

Let's give you an example: If we have a river and there has been allowed 16 small-scale hydroelectric power plants that affect the river, the authorities can **say no to power plant number 17**, if this - together with the 16 others - will have negative impact on biodiversity.

But this principle also says that the authorities **can say no to the first small-scale hydroelectric power plants applied for in a river**, if it's likely that there will be other applications that together with the first one will have negative impact on biodiversity. In these cases the authorities can ask for a holistic management plan for small-scale hydroelectric power plants and the effect they will have on the ecosystems.

User-pays principle




The user-pays principle implies that the costs associated with preventing or limiting damage to biodiversity caused by a project, shall be born by the project owner. In Norway we have for many years had such a principle for pollution – “the polluter-pays-principle”- and for activities that affect cultural heritage. But not for biodiversity, until now.


Let me give you one example. The authorities may require a minimum flow of water in rivers where someone wants to build hydropower plants. This might make the project more expensive, but a better choice for the natural environment.

However, payment can also relate to costs for obtaining knowledge, or costs related to monitoring nature where a permitted activity will take place.

Priority species



Modernization
Species and their habitats in context
Active measures
Abolish priority



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Cucujus cinnaberinus

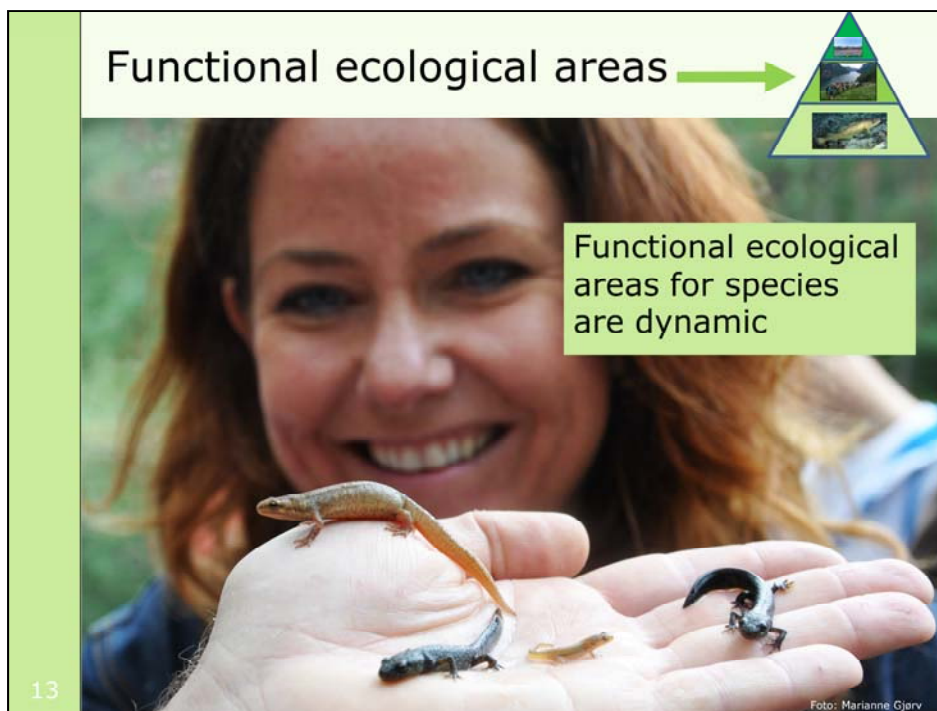
Photo: Stefan Ölberg

We are now moving up in the pyramid and the new legal tool - priority species and functional ecological areas for these species.

Priority species is a **modernization** of the species management in Norway. The act sees species and their habitats in context. In earlier legislation, it was forbidden to pick protected flowers, but legal to destroy the flower's habitats, for instance through development projects.

In the last 100 years we have had the opportunity to protect a species. Traditionally this will imply that any kind of hunting, destroying or harvesting of species are strictly forbidden. Priority species is something more, and can be described as a rescue plans for threatened species. The act states that active measures shall be taken if this is necessary, in order to ensure the conservation of the species.

If the species no longer are threatened, the Government can abolish the priority. This may be the case if a specie is in good condition and there is no longer any need for active measures.



To protect the priority species habitat, the act gives us the possibility to **establish functional ecological areas for species**. We consider the management of such areas as sustainable use.

The ecological functional areas follow the species, and implies that if a species move from one place to another the area follow the species. This makes the **ecological functional areas a dynamic tool for protection of biodiversity**.

The ecological functional area is different from nature reserves that are static. We have, if not many, examples from the past were we have established a nature reserve for protecting the habitat for seabirds, and the next summer the seabirds moved to another habitat outside the protected area.

Nevertheless, the management of ecological functional areas is quite demanding, and requires a precise management

Proposal for priority species

Great crested salamander



Freshwater pearl mussel



Red helleborine



Lesser white-fronted goose



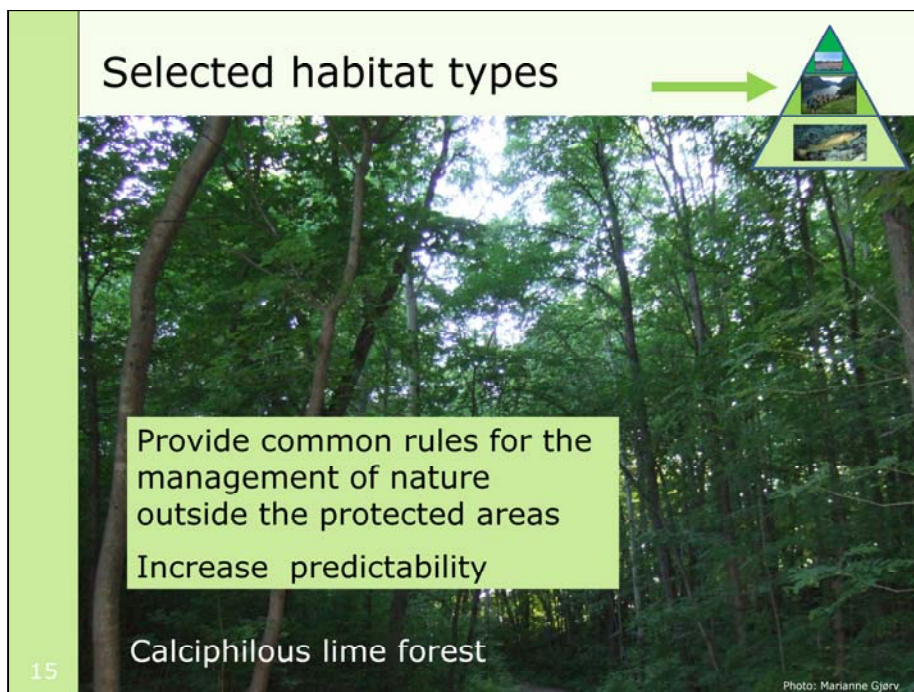
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The Government may make regulations determining which species are to be designated as priority species.

The first list of species being prioritized this fall consists of 12 plants and animals, 7 of them have designated ecological functional areas.

Among this species is the **great crested salamander**, which is definitively not at great as its giant Japanese cousin, the **lesser white-fronted goose**, which is one of two birds in Norway that are listed as threatened globally, the the biggest Norwegian orchid the **red helleborine**, and the amazing **freshwater pearl mussel**, that can be up to 250 years old and were 2/3 of Europe's population lives in Norway.

1. Great crested newt (*triturus cristatus*), Stor salamander, (ecol. func. area)
2. Freshwater pearl mussel (*margaritifera margaritifera*), Elvemusling
3. Lesser white-fronted goose (*anser erythropus*), Dverggås, (ecol. func. area)
4. Red helleborine (*cephalanthera rubra*), Rød skogfrue



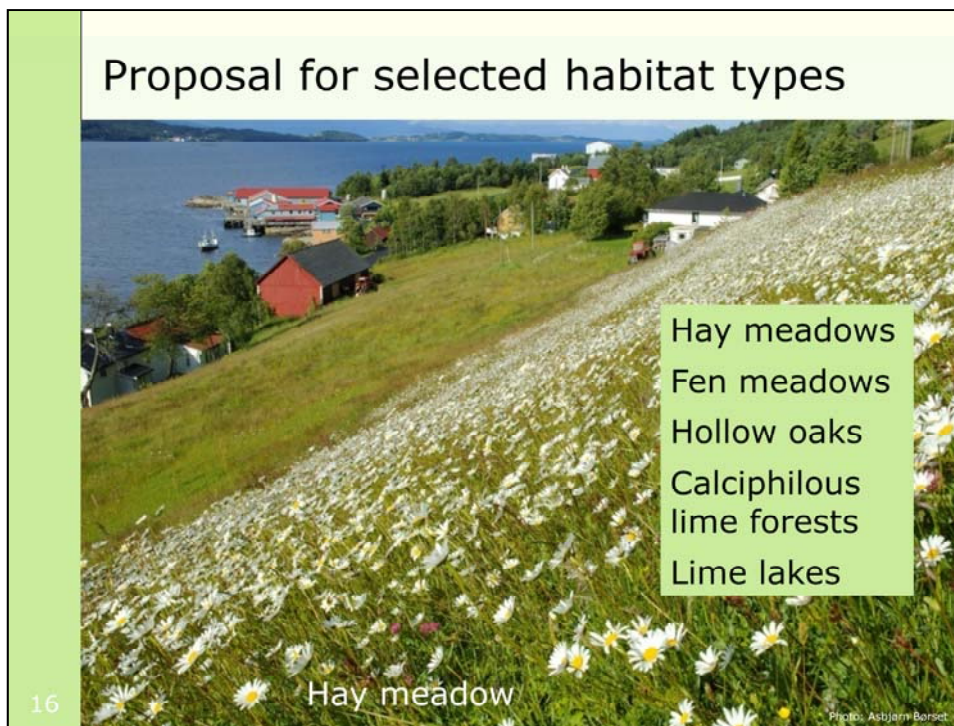
The establishment of selected habitat types is a new and important tool in the act.

With selected habitat types, we have for the first time **got common rules for the management of biodiversity outside protected areas.**

The governing of selected habitat types will be achieved through **sustainable use** and **gives a clear signal that some biodiversity outside protected areas are more important than others**

The sectors, and not the environmental authorities, have the main responsibility to take care of these habitats. **Special account** shall be taken by the authorities, in order to avoid reduction of the range and quality of the selected habitat types.

The provision increases **predictability** and at the same time emphasizes the sector's **responsibility** to take care of biodiversity. Both local authorities and agricultural and forestry authorities will need to follow up closely how the selected habitat types develops.

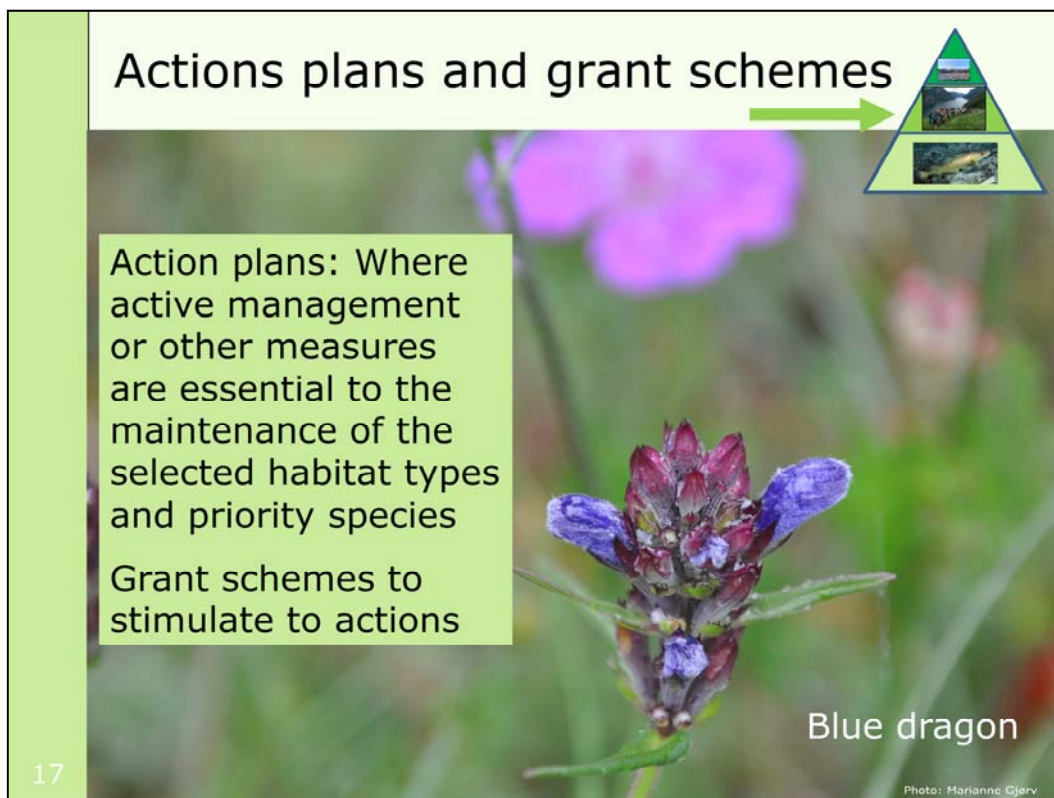


Here is the list of the five habitat types that have been suggested as selected habitat types:

1. Hay meadows - slåttemark
2. Fen meadows – slåttemyr
3. Hollow oaks - hule eiker
4. Calciphilous lime forests - kalk-lindeskog
5. Lime lakes - kalksjøer

Among these proposed selected habitat types, are the hay meadows, that are the richest cultural landscape in Norway when it comes to biodiversity. This habitat type has been reduced with about 90 % due to change in agricultural methods. Hollow oaks create a unique ecosystem that is the habitat for a lot of threatened species in Norway. By selecting hollow oaks, we are able to maintain this special habitat type for the future.

Actions plans and grant schemes



Action plans: Where active management or other measures are essential to the maintenance of the selected habitat types and priority species

Grant schemes to stimulate to actions

Blue dragon

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Photo: Marianne Gjerv

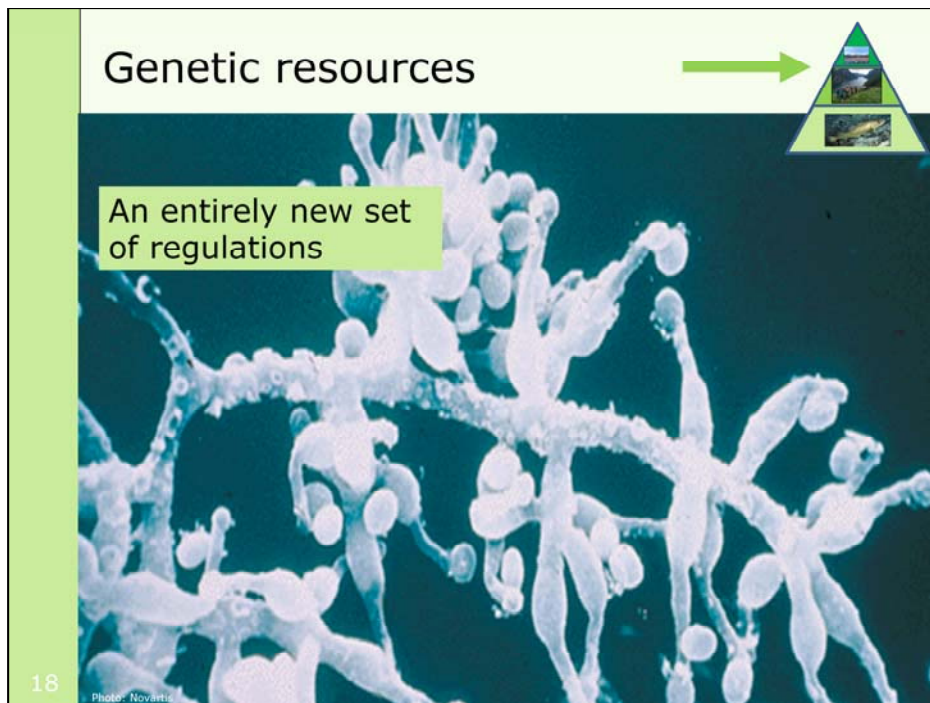
Photo: Blue dragon -suggested as a priority specie.

For both selected habitat types and priority species, the Government shall present an action plan on safeguarding the habitat type or species.

This plan will help landowners, right holders, organizations and local communities to take care of habitat types and species, based on knowledge.

Grant schemes for priority species and selected habitat types are new economic tools. Economic tools have existed in Norway for non-protected areas, but not so closely linked to a law.

This is not compensation, but money that will stimulate landowners, rights holders, organizations and municipalities to take care of these species and habitat types.



The Nature Diversity Act has given us an entirely new set of regulations concerning the utilisation of genetic material.

This is the very same question about access and benefit-sharing that we now are negotiating here in Nagoya.

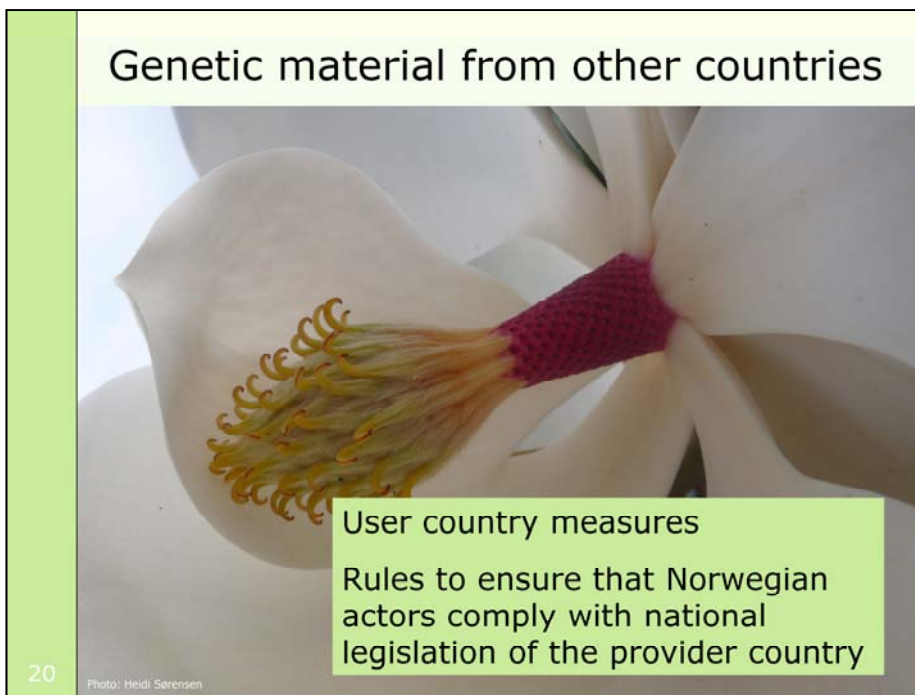
The act says that **access to Norwegian genetic resources requires a permit from the authorities. The permit procedure will be developed in a separate regulation. The act states that the authorities shall take appropriate measures for sharing the benefits arising out of the utilisation of genetic material** in such a way safeguarding the interests of local communities and indigenous peoples.

Genetic diversity is a benefit, and benefits must be shared. In 1969 a Swiss researcher spent his holiday in Norway, collecting soil samples from the mountain plateau Hardangervidda. Back at his laboratory in Switzerland he found that the soil samples from Norway included a little fungus. This fungus that you can see on the screen is now known as Cyclosporin A. Cyclosporin A is used in connection with organ transplants. The annual sales revenue from this product totaled 1.2 billion US Dollars in 1997. Due to a lack of benefit sharing legislation in Norway at that time, we did not have the right to claim benefits of the use of this fungus.



The act states that genetic material obtained from the natural environment in Norway belongs to the society as a whole - the Norwegians and the Sami people. That means that nobody has an exclusive right to genetic material on basis of ownership of the biological material from which it is derived.

The State has the authority to manage collection and utilisation of genetic materials. As far as possible, the management regime shall ensure that the genetic material continues to be a common resource, also for future generations. Anyway, the common ownership does not restrict applications for patents or other intellectual property rights over inventions containing genetic material.

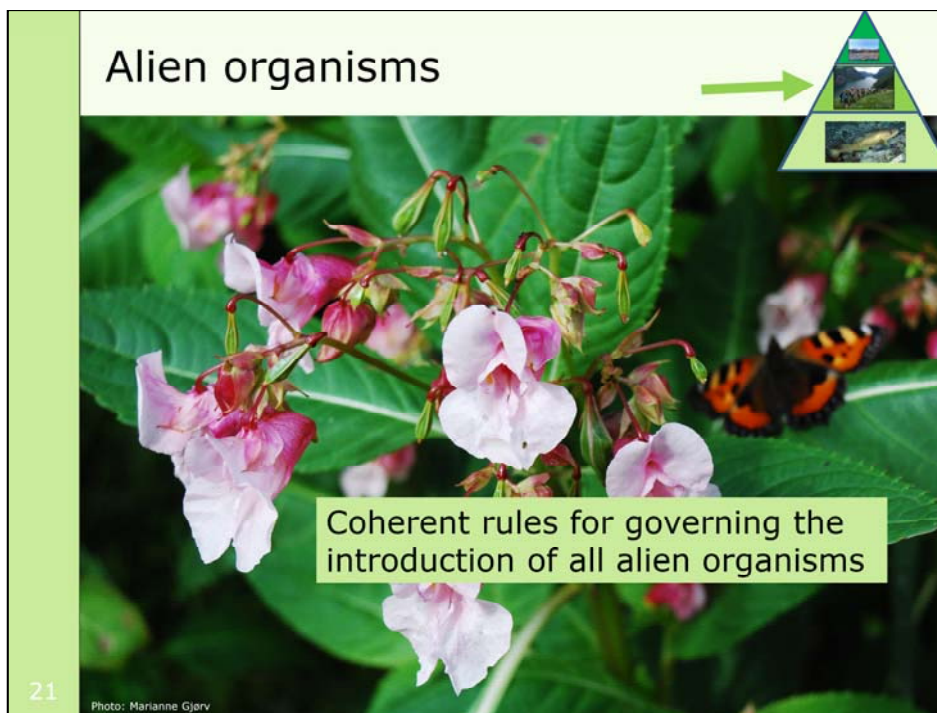


Norway is the first country in the world that have introduced **extensive user country measures** in its legislation.

This means that users under Norwegian jurisdiction have to comply with prior informed consent of the provider country. They also have to comply with other conditions, such as benefit-sharing.

In addition, the Norwegian Patent Act requires that the provider country or country of origin, is disclosed in patent applications based on genetic material. It is also required to enclose information on whether prior informed consent has been sought. This also includes traditional knowledge.

Finally, there is a possibility for the Norwegian state to enforce these conditions in favor of those who have set them, by bringing on a legal action in Norway.



This flower is beautiful (kjempespringfrø, *Impatiens glandulifera*), but it is an introduced alien organism that has escaped from gardens. It is now a threat to biodiversity in many places in Norway. The plant can grow 1,5 meters high and has in a short time spread from the southern part of Norway to the northern part of the country. It is on the so called Black List of unwanted species.

Alien organisms have major impacts on natural habitats and ecosystems world wide, also in Norway. Alien organism threatens various numbers of species that natural occur in Norway, including several populations of salmon and the Norwegian lobster and cancer.

The Nature Diversity Act gives Norway **for the first time a set of coherent rules governing the introduction of alien organisms**. These provisions will ensure that there are common principles and norms for all kinds of introduction and for all types of organisms.

Regulation for import and release

A permit is needed for introduction of alien organisms

The applicant has the burden of proof

A separate regulation for introduction of foreign trees is being prepared

North American
Spruce Sitka

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Photo: Marianne Gjørsvik

The purpose of these rules is to secure that import and release of alien organisms do not have negative impact on biological diversity.

The act states that a permit is needed if you want to import or release an alien organism. In these cases it is the applicant that has the burden of proof. This implies that the applicant has to document that the import does not have negative impact on biodiversity. No permit may be granted if there is reason to believe that the import or release will have substantial adverse impacts on biological diversity.

Release of foreign trees cause changes in many habitats, specially in the coastal landscape of western Norway. A separate regulation is being prepared to regulate the introduction of foreign trees. On the screen you can see the North American spruce Sitka, that is a threat to the ancient cultural landscape of open heathlands along the western coast of Norway. The Norwegian spruce is mainly located on the eastern part of Norway, and spruce do not naturally occur in the western part of Norway. Introduction of the North American Spruce Sitka can dramatically change the naturally ecosystems as we know them.



Norway has for several years tried to combat alien organisms threatening biodiversity.

For alien organisms already established in Norwegian nature, the act has several rules that give the government the necessary tools to get rid of, or to reduce, the impact from these organisms.

There are for instance major effects of dispersals of alien animal species, such as the salmon parasite *Gyrodactylus salaris*, shown on the picture to the right. More than 30 Norwegian rivers have been infected by the alien organism, that will cause the sure extinction of the rivers salmon population if measures are not being taken. The combating of this parasite, costs the Norwegian society hundreds of millions of Norwegian kroner every year.

Protected areas




Approximately 16% of the Norwegian mainland is protected

An increased focus on management and maintenance of protected areas

- Strategic management plans
- Operational management plans
- Increased funding

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Photo: Marianne Gjørsvik

Photo: Trollheimen nature conservation area in Sør-Trøndelag

Nature conservation has been, and will still be, an important tool to take care of valuable nature. Approximately 16 % of the Norwegian mainland is protected.

We are completing two major protection plans in 2010, the National Park Plan and a specialized protection plan. In addition, we have to increase the protection of forest and establish marine protected areas.

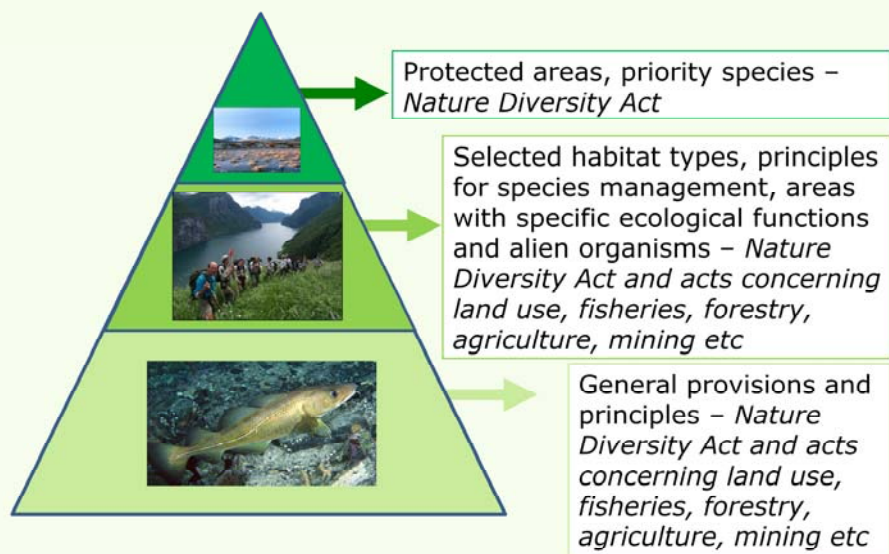
In all the protected areas we will have an increased focus on management. In approximately 30 % of the protected areas, biodiversity is threatened. We have to do something about this.

Strategic management plans are now required for large protected areas. This is a new demand in the Nature Diversity Act.

Where sustainable use is essential to achieving the purpose of protection, an **operational management plan** shall be prepared. This is also a new demand in the act.

Funds under management plans have increased substantially in recent years. This funding is essential if we shall be able to improve the status or trends for species, habitat types and ecosystems in protected areas.

Summing up – back to the pyramid



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Source: Ministry of the Environment
Photos: Bård Løken, Statens naturoppsyn, Erling Svensen

Now let's go back to the pyramid. It illustrates how the purpose, management objectives and the key principles constitute the foundation wall. If the key principles are followed up, we have ensured a minimum standard in the management of biodiversity. While the management objectives show where Norway wants to go in the management of nature.

It also shows that the better job municipalities and sectors do with biodiversity in general, there will be less need for the active use of middle-bracket measures and to make decisions on protection of areas. This applies in the same way higher up the pyramid; if the instruments in the middle-bracket work, there is less need for protection.

For us this concludes why The Nature Diversity Act is truly about sustainable use and protection of nature.