# APF Net Curriculum 3 INternational dialogue on forestry issues

## **Lecture 4 Regulatory Frameworks and types of Multi-lateral Agreements**

## **Video 2**

## **European Forests: Central to the World We Live in**

## **TranscriptsDuration: 00:10:45**

(Male Narrator)

Forests are the most important and versatile ecological infrastructure in Europe. Today forests cover 35% of Europe's landscape, but this hasn't always been the case. In late medieval times there was hardly any forest due to overgrazing and overcutting for timber and firewood, and decimation during centuries of wars. The subsequent shortage of wood led to the development of theories about sustainable forest management in the early 18th century. Since then, the area of forested land in Europe has increased.

There have still been shortages of wood, especially after World War Two, but countries have also invested in forest management. This has meant that over the last 20 years, around 800,000 new hectares of forest have been added each year. But forests still face risks. We can all remember the images of forest decline caused by acid rain in the 1980s, when air pollution together with extreme weather caused widespread forest die-back. The strong reduction in sulphate emissions since then has halted this decline. We also know that the 2003 drought affected forests, and that climate change will bring further challenges. Even a modest climate change of two degrees will mean large summer temperature increases of maybe seven or eight degrees, which will lead to further droughts in areas like the Mediterranean. These are enormous changes, which the present trees cannot cope with. It's possible that the species mix will change and the type of forest we currently see in each particular area will disappear. But why does that matter? Why do forests continue to be so important for each part of Europe, even in the 21st century? Let us take you on a tour around Europe and show you. We'll start off in the hottest spot - the Mediterranean. Mediterranean forests have a remarkable set of features. They contain more than 25,000 plant species and more than 300 indigenous trees. No wonder this region is one of the world's biodiversity hotspots. The Mediterranean's mosaic of forest landscapes and outstanding biological richness helps to attract the millions of tourists who visit the region every year. But forests here are more valuable still. They contribute to the socioeconomic development of rural areas and poverty alleviation, the food security of society, and the preservation of multiple environmental services, all of which the international community considers globally important. Forest ecosystems also have a vitally important role in preserving the two most important resources in the region - water and soil, the main limiting factors for life in the area. Human activity shaped our Mediterranean forest landscapes. They've demonstrated strong resilience to change for several millennia, despite their apparent fragility. But today's forests face a threat of unprecedented magnitude. The Mediterranean is one of the most sensitive regions in the world to global climate changes. The last few decades have seen an increased number of forest fires, the advance of desertification, and changes in species distribution. We urgently need to develop adaptive management strategies to cope with the drastic and rapid changes taking place. Heading north, central Europe has mostly temperate oceanic forests. These tend to have fast-growing tree species and plantations, and are important as a source of wood and fibre for industry. Large forest countries like France and Germany produce substantial amounts of wood, even more than countries like Finland or Sweden. The wood is high quality and high value, often combining hundreds of years of forest management experience with expert craftsmanship in its usage. But this area also contains Europe's highly urbanized societies, who intensely use the areas of forest near their homes for recreation. There, the relatively small forest cover is very important for human health. And the scattered pieces of woodland in the agricultural landscape are also important for connectivity and biodiversity protection.

Millions of small owners take care of these diverse pieces of forest and are responsible for meeting the multifunctional demands on their land. They see the importance of managing forests sustainably, by integrating forest management with rural development, amenity values, recreation, tourism and wellbeing. However, central European forest areas face risks from increases in population and human impact on the environment, as well as significant natural hazards like storms, fires, pests and pathogens. Storms, for example, cause 50% of all catastrophic damage to European forests, with an average of two destructive storms each year. Storms can have a major impact on timber prices in the short term and, longer-term, can affect timber availability as well as water quality, carbon sequestration and biodiversity. Further north still, northern Europe is home to boreal forests, which are dominated by spruce and pine. There is heavy rainfall compared to the amount of evaporation, and as a result forests overgrow if they are not managed. The forest in this region is central to the landscape, mostly family-owned and intensively used as a source of raw material for industry. But this area is also a good example of how non-wood products, such as berries, mushrooms, lichen and game, can be an important source of income.

Forest tourism is also becoming more and more important. Here wood is a major source of energy, helping to significantly decrease greenhouse gas emissions from the production and combustion of fossil fuels. While 3.7% of European energy use is forest-based, in northern Europe it's much higher - around 20% in Finland, for example. Forests have become an important source of alternative renewable energy and biomass production.

Forest woodchips and other bioenergy materials can power energy plants, for example, while, on a more domestic scale, wood pellets can provide central heating for homes. Bioenergy usage has risen dramatically during the last two decades, and current European-wide targets for renewable energy aim to increase production even more. The challenge for us, of course, is to sustainably manage forests and maintain their biodiversity while supplying more wood to contribute to this emerging green economy. We also face competition between the rise in local usage of wood for biomass and changing needs for industrial products, for example the requirements for timber to come from forests demonstrably managed for sustainability. Heading south and east we find the countries of Eastern Europe, which are home to temperate continental forests with a diverse range of trees. The countries in this area have seen huge changes over the last few decades as they've restructured their economic and social systems. State-owned forests have returned to private ownership in many countries, creating new types of family forest owners. In the European part of Russia there are huge primary forest resources. This area's forests, together with those in the rest of Europe, act as a carbon sink, removing carbon dioxide from the atmosphere and storing it. This process is known as carbon sequestration. It’s a vital part of climate change mitigation, and forests need to be managed sustainably with this in mind. This carbon storage is then also carried through into wood products, where the carbon remains for another 20-30 years. European countries are developing criteria and indicators for sustainable management, which will help to meet the challenge of balancing these demands with forests' many other uses. European forests are part of a wider global discussion, and we need to develop common strategies, forums and policy processes to respond to these challenges. Strategic forest policy deliberations are in progress. For example, ministers responsible for forests decided at the Oslo Forest Europe summit to launch a negotiating process towards a legally binding agreement on pan-European forests. At the same time the EU is developing a new forest strategy to address future challenges.

Forests are the most important and versatile ecological infrastructure in Europe. They host an important share of biodiversity and provide products and services which support the resilience of rural areas and the wellbeing of urban ones. We shouldn't forget that they also provide resources for a highly competitive and bio-based industry which has the opportunity to become a model in the context of the bio-economy, delivering smart, sustainable and inclusive growth. Most importantly, forests are key for the adaptability of our continent to accelerating global changes. We need to work together to overcome the urgent challenges and threats from climate change, and connect research and policymakers to ensure that our forests remain the jewel in the crown of Europe's environment.