# APF Net Curriculum 3 INternational dialogue on forestry issues

## **Lecture 9 Mandates and activities of forestry-related international organizations addressing forestry issues (Part 2) Research Organizations, NGO’s and others**

## **Video 2**

## **The Swedish forestry model- Environmental atlas of Europe**

## **Transcripts Duration: 00:08:18**

(Olof Johansson, Head of environment & sustainable development, Sveaskog)

Having active forest reproduction is an important part of the solution to combat climate change.

(Male Narrator)

The forests' ability to absorb carbon dioxide can be seen as a natural ecosystems service. It binds carbon in trunks, roots, branches needles and leaves. The forest absorbs the carbon most effectively when it is young and middle aged, it is then that it grows most rapidly.

(Olof Johansson, Head of environment & sustainable development, Sveaskog)

Our forestry model is to always ensure that we regenerate the forests so when taking away the old forests, we make sure to establish a new forest and that we've been doing that for 100 years and it's been very successful because today the volume is more than double the volume that we had hundred years ago.

(Male Narrator)

Swedish forest grows by a total of 110 million cubic meters a year and the net reduction of carbon dioxide in the atmosphere as a result of Swedish forestry and wood production is 60 million metric tons a year. This is equivalent to the entire carbon dioxide emissions for the whole of the country.

(Marie Larsson-Stern, Vice President Silviculture, Sveaskog)

In Sweden we increase the growth on the forests all the time, we have developed a model that is very efficient. We set aside 20% of our forest land for nature conservation, and that is in different scales but the rest of the forest, the 80% we will use very efficiently and in the long term sustainable way.

(Male Narrator)

The Swedish forestry model is built on a method of monitoring the forest. The first step is to decide which trees should be harvested and which should be left behind.

(Stefan Bergquist, Forest Planner, Sveaskog)

We are using GPS technology and geese technology. I'm looking at the trees, measuring them to get the right volume. That is important later in the chain to see what timber around and the wood we are getting. And now we mark this on the map. I'm looking at the soil, I’m looking at what's growing on the feel you can say, and I'm also looking at way to regenerate the new stand and I'm looking at the considerations, it could be cultural or it could be big crease that are going to stay for eternity on the ground. The work I'm doing with the field computer, it's the base for the rest of the work in the company.

(Male Narrator)

The GPS information is applied to the high-tech felling machines. The driver in the machine follows the instructions from the GPS and thereby only harvest the trees already pre-selected. The Swedish forestry model works with several harvesting periods in the 100 years life cycle of a forest stand. The one that provides most income is final felling of areas, whether growing has decreased or not much more expected of the step. But another and one of the most important measures is thinning as it's this that ensures that the forest grows correctly and profitably.

(Marie Larsson-Stern, Vice President Silviculture, Sveaskog)

When we carry out thinning in Sweden, we take away some of the trees around 30% of the standing volume, and that is to promote the best trees, the highest quality trees and give possibilities to the remaining stands to grow until the end of the life cycle. During the lifetime of the forest stand, you take out wood at different times and you can get products and you can get pulpwood from the younger stands, and from the old stands you get mainly timber, but you can also get pulpwood of course. But we work with the forest stands all over the life cycle to get the bush best products at the end.

(Male Narrator)

During the thinning and felling, tips and braches are also produced. Today these are defined as forestry waste products and are partly used for biofuel. Today these are defined as forestry waste products and are partly used for biofuel.

(Olof Johansson, Head of environment & sustainable development, Sveaskog)

Biofuel is part of the sustainable forestry production because biofuel from the forest is about taking out the tips and branches that are produced when felling forests and thinning forests. And that biomass can substitute for fossil fuels which is extremely important from a climate point of view. Biofuel is becoming more and more important for Swedish energy production. It's steadily increasing and today it actually is 26% of the total Swedish energy production.

(Male Narrator)

The Swedish forestry companies work with replanting the harvested areas. This is done using three different regeneration methods, planting, sewing and natural regeneration from seed trees.

(Marie Larsson-Stern, Vice President Silviculture, Sveaskog)

In Sweden we plant 300 million seedlings each year. Over the years we have improved the regeneration methods a lot. If you use seeds from the trees in the forest, you will get a good forest in the next generation. But if you work with tree breeding, and process material and selection overtime to get the best material, you will have much higher success in the forest for future.

(Olof Johansson, Head of environment & sustainable development, Sveaskog)

The future target for Swedish forestry production is to increase the level of production from where we are today and we think that we will be able to reach a 20% increase until the year 2030. The impact of that will be that we can actually bind and substitute carbon dioxide at the level which is double the effect that we are having today.